APPENDIX C – 4: FORMS DATA DICTIONARIES, AND REPORTS
TB BRANCH

Appendix C – 4 contains the TB-specific forms, data dictionaries, and reports referenced within the Web-CMR Business Requirements (Appendix A). Sections 1 through 6 contain the forms required by the TB branch (**2.2.3.8**) and supplemental supporting information, including data dictionaries. Section 7 of this Appendix contains the TIMS Surveillance Import Utility referenced in the Case Registry requirements (**2.4.4.7**). Section 8 of this Appendix contains a description of the reports required by the TB branch (**2.8.1.4**), and examples of the required reports.

Section 1: TB Case Report Forms

- **Report of Verified Case of Tuberculosis (RVCT)**[1]
  - RVCT Field Names
  - TB Data Dictionary TIMS
- **Follow-Up Report 1 – Initial Drug Susceptibility**[1]
  - Follow-Up Report 1 – Field Names
- **Follow-Up Report 2 – Case Completion Report**[1]
  - Follow-Up Report 2 – Field Names
- Multi-Drug Resistant Tuberculosis (MDR - TB) Checklist
  - Multi-Drug Resistant Tuberculosis (MDR-TB) Report

Section 2: TB B Notification of immigrants and refugees

- Electronic Disease Notification (EDN) US Based TB Evaluation Worksheet
  - EDN Data Dictionary
  - EDN Data Definitions
- A/B Notification Report
  - A/B Notification Protocol
- A/B Notification Sentinel
- Hmong ATS Classification Worksheet Funded
- Hmong ATS Classification Worksheet Unfunded

Section 3: TB Outbreak Reporting

- TB Outbreak Report Form
  - TB Outbreak Report Instructions
  - TB Outbreak Fact Sheet

Section 4: TB Contact Reporting and Targeted Testing

- *ARPE Contact Investigation*
  - Aggregate Report for Program Evaluation (ARPE) Preliminary
  - Aggregate Report for Program Evaluation (ARPE) Final
    - ARPE Instructions
    - ARPE CI Roster
    - ARPE Data Tallying Tool
    - ARPE CI Variable Names
    - ARPE Data Dictionary
- TB Case Contact Roster (see form in Contact Investigation Toolkit)
- TB Contact Information Form (see form in Contact Investigation Toolkit)
- *ARPE Targeted Testing*
  - ARPE TT Report Forms
    - ARPE TT Instructions
    - ARPE Schedule

[1] Form to be included in Proof of Concept (POC) Demonstration

Section 5: Contact Investigation Toolkit

- Case Contact Roster
- Case Data Dictionary
- Comparison Table Data Elements
- Contact Data Dictionary
- Contact Info Form
- Data Variables List
- Plan Implement CI Improvement
- Policies Procedures
- Using Data To Improve Contact Investigations
- Using Data To Improve Staff Processes

Section 6: Additional Forms Used by LHDs

Forms for Use With Patients Who Move During TB Treatment

- Inter-jurisdictional Tuberculosis Notification
- Inter-jurisdictional Tuberculosis Follow-Up
- Cure TB Bi-National Notification
- Immigration and Customs Enforcement (ICE) Notification of TB

- CDC International TB Notification Form

Section 7: TIMS Surveillance Import Utility

- TIMS Surveillance Import Utility

Section 8: Reports

- TB Automated Reports Table
- Example Reports
- TB Reports and Variables

State of California—Health and Human Services Agency

Department of Health Services

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Form to be included in Proof of Concept (POC) Demonstration

U. S. Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention (CDC)
Atlanta, Georgia 30333

REPORT OF VERIFIED CASE OF TUBERCULOSIS

Patient name (last) (first) (M.I.)	Address (number, street)	City	State	ZIP code

SOUNDEX ☐☐☐☐

1. State reporting
Specify: _____
Alpha state code ☐☐

2.
State case number ☐☐☐☐☐☐☐☐☐☐
City/county case number ☐☐☐☐☐☐☐☐☐☐

3. Date submitted (Month ☐☐ Day ☐☐ Year ☐☐☐☐)
By: _____

4. Address for case counting
City ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
Within city limits 1 ☐ Yes 2 ☐ No
County ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐
ZIP code ☐☐☐☐☐ – ☐☐☐☐

5. Date reported (Month ☐☐ Day ☐☐ Year ☐☐☐☐)

6. Date counted (Month ☐☐ Day ☐☐ Year ☐☐☐☐)

7. Date of birth (Month ☐☐ Day ☐☐ Year ☐☐☐☐)

8. Sex
1 ☐ Male
2 ☐ Female
9 ☐ Unknown

9. Race *(select one or more)*
1 ☐ American Indian or Alaskan Native
2 ☐ Asian *(specify)*: _____
3 ☐ Black or African American
4 ☐ Native Hawaiian or Pacific Islander *(specify)*: _____
5 ☐ White
9 ☐ Unknown

10. Ethnicity *(select one)*
1 ☐ Hispanic or Latino
2 ☐ Not Hispanic or Latino
9 ☐ Unknown

11. Country of origin
☐ U.S.
☐ Not U.S. *(specify country)*: _____
☐ Unknown

12. Month/year arrived in U.S. (Month ☐☐ Year ☐☐☐☐)

13. Status at diagnosis of TB
1 ☐ Alive
2 ☐ Dead
9 ☐ Unknown

14. Previous diagnosis of tuberculosis
1 ☐ Yes
2 ☐ No
9 ☐ Unknown
Year ☐☐☐☐ If yes, list year of previous diagnosis
1 ☐ If more than one previous episode, check here

15. Major site of disease
00 ☐ Pulmonary
10 ☐ Pleural
21 ☐ Lymphatic: Cervical
22 ☐ Lymphatic: Intrathoracic
23 ☐ Lymphatic: Other
29 ☐ Lymphatic: Unknown
30 ☐ Bone and/or joint
40 ☐ Genitourinary
50 ☐ Miliary
60 ☐ Meningeal
70 ☐ Peritoneal
80 ☐ Other*
90 ☐ Site not stated
*If site is "Other," enter anatomic code (see list) ☐☐

16. Additional site of disease
00 ☐ Pulmonary
10 ☐ Pleural
21 ☐ Lymphatic: Cervical
22 ☐ Lymphatic: Intrathoracic
23 ☐ Lymphatic: Other
29 ☐ Lymphatic: Unknown
30 ☐ Bone and/or joint
40 ☐ Genitourinary
50 ☐ Miliary
60 ☐ Meningeal
70 ☐ Peritoneal
80 ☐ Other*
*If site is "Other," enter anatomic code (see list) ☐☐
If more than one additional site, check here. ☐ 88

17. Sputum smear
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown

18. Sputum culture
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown

19. Microscopic exam of tissue and other body fluids
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown
If positive, enter anatomic code(s) (see list) ☐☐ ☐☐

20. Culture of tissue and other body fluids
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown
If positive, enter anatomic code(s) (see list) ☐☐ ☐☐

21. Chest X-ray
1 ☐ Normal 2 ☐ Abnormal 3 ☐ Not done 9 ☐ Unknown
If abnormal *(check one)*
1 ☐ Cavitary
2 ☐ Noncavitary consistent with TB
3 ☐ Noncavitary ***not*** consistent with TB
If abnormal *(check one)*
1 ☐ Stable 3 ☐ Improving
2 ☐ Worsening 9 ☐ Unknown

22. Tuberculin (Mantoux) skin test at diagnosis
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown
Millimeters (mm) of induration ☐☐
If Negative, was patient anergic 1 ☐ Yes 2 ☐ No 9 ☐ Unknown

Information contained on this form which would permit identification of any individual has been collected with a guarantee that it will be held in strict confidence, will be used only for surveillance purposes, and will not be disclosed or released without the consent of the individual in accordance with Section 308(d) of the Public Health Service Act (42 U.S.C. 242m).

REPORT OF VERIFIED CASE OF TUBERCULOSIS—Page 2 of 2

23. HIV status: **NOT APPLICABLE**

24. Homeless within the past year
0 ☐ No 1 ☐ Yes 9 ☐ Unknown

25. Resident of correctional facility at the time of diagnosis
0 ☐ No 1 ☐ Yes 9 ☐ Unknown
If yes, 1 ☐ Federal prison 3 ☐ Local jail 5 ☐ Other correctional facility
Jurisdiction of jail: _____
2 ☐ State prison 4 ☐ Juvenile correctional facility 9 ☐ Unknown

26. Resident of long-term care facility at time of diagnosis 0 ☐ No 1 ☐ Yes 9 ☐ Unknown
If yes, 1 ☐ Nursing home 4 ☐ Mental health residential facility 6 ☐ Other long-term care facility
2 ☐ Hospital-based facility 5 ☐ Alcohol or drug treatment facility 9 ☐ Unknown
3 ☐ Residential facility

27. Initial drug regimen

	NO	YES	UNK.		NO	YES	UNK.		NO	YES	UNK.
Isoniazid	0 ☐	1 ☐	9 ☐	Ethionamide	0 ☐	1 ☐	9 ☐	Amikacin	0 ☐	1 ☐	9 ☐
Rifampin	0 ☐	1 ☐	9 ☐	Kanamycin	0 ☐	1 ☐	9 ☐	Rifabutin	0 ☐	1 ☐	9 ☐
Pyrazinamide	0 ☐	1 ☐	9 ☐	Cycloserine	0 ☐	1 ☐	9 ☐	Ciprofloxacin	0 ☐	1 ☐	9 ☐
Ethambutol	0 ☐	1 ☐	9 ☐	Capreomycin	0 ☐	1 ☐	9 ☐	Ofloxacin	0 ☐	1 ☐	9 ☐
Streptomycin	0 ☐	1 ☐	9 ☐	Para-Amino Salicylic Acid	0 ☐	1 ☐	9 ☐	Other	0 ☐	1 ☐	9 ☐

28. Date therapy started
Month ☐☐ Day ☐☐ Year ☐☐☐☐

29. Injecting drug use within past year
0 ☐ No 1 ☐ Yes 9 ☐ Unknown

30. Non-injecting drug use within past year
0 ☐ No 1 ☐ Yes 9 ☐ Unknown

31. Excess alcohol use within past year
0 ☐ No 1 ☐ Yes 9 ☐ Unknown

32. Occupation *(check all that apply within the past 24 months)*
1 ☐ Health care worker
2 ☐ Correctional employee
3 ☐ Migratory agricultural worker
4 ☐ Other occupation
5 ☐ Not employed within past 24 months
9 ☐ Unknown

RVCT User Field: HIV testing offered
Was HIV testing offered during the course of TB evaluation or treatment?
0 ☐ No 1 ☐ Yes 9 ☐ Unknown
If no, please indicate reason in comments field below.

RVCT User Field: AIDS match performed
1 ☐ AIDS registry match was performed and the AIDS number ***was*** found
2 ☐ AIDS registry match was performed and AIDS number was ***not*** found
3 ☐ Registry match is pending
4 ☐ AIDS registry match was ***not*** performed
9 ☐ Unknown
If AIDS match was found, provide the state HARS HIV/AIDS patient number: ☐☐☐☐☐☐☐

Comments

State of California—Health and Human Services Agency

Department of Health Services

U. S. Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention (CDC)
Atlanta, Georgia 30333

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

REPORT OF VERIFIED CASE OF TUBERCULOSIS

Patient name (last)	(first)	(M.I.)	Address (number, street)	City	State	ZIP code
LASTNAME	FIRSTNAME					

SOUNDEX

SOUNDEX

1. State reporting
Specify: STATE
Alpha state code

2.
State case number: STCASENO
City/county case number: LOCASENO

3. Date submitted
Month Day Year: DATESUBM
By: WORKERID

4. Address for case counting
City: CITY
Within city limits 1 ☐ Yes 2 ☐ No: CITYLIMITS
County: COUNTY
ZIP code: ZIPCODE – ZIPSUFFIX

5. Date reported
Month Day Year: REPORTDATE

6. Date counted
Month Day Year: COUNTDATE

7. Date of birth
Month Day Year: BIRTHDATE

8. Sex: SEX
1 ☐ Male
2 ☐ Female
9 ☐ Unknown

9. Race *(select one or more)*: RACECALC
1 ☐ American Indian or Alaskan Native: AMIND
2 ☐ Asian *(specify)*: ASIANEXT: ASIAN
3 ☐ Black or African American: BLACK
4 ☐ Native Hawaiian or Pacific Islander *(specify)*: NAHAWEXT: NAHAW
5 ☐ White: WHITE
9 ☐ Unknown: RACEUNK

10. Ethnicity *(select one)*: ETHNIC
1 ☐ Hispanic or Latino
2 ☐ Not Hispanic or Latino
9 ☐ Unknown

11. Country of origin: USCITIZEN
☐ U.S.
☐ Not U.S. *(specify country)*: NATION
☐ Unknown

12. Month/year arrived in U.S.
Month Year: DATEENTEREDUS

13. Status at diagnosis of TB: DIAGSTATUS
1 ☐ Alive
2 ☐ Dead
9 ☐ Unknown

14. Previous diagnosis of tuberculosis: PREVTB
1 ☐ Yes
2 ☐ No
9 ☐ Unknown

Year: PREVYEAR — If yes, list year of previous diagnosis

1 ☐ If more than one previous episode, check here: PREVAGAIN

15. Major site of disease: MAJORSITE

00 ☐ Pulmonary	23 ☐ Lymphatic: Other	50 ☐ Miliary
10 ☐ Pleural	29 ☐ Lymphatic: Unknown	60 ☐ Meningeal
21 ☐ Lymphatic: Cervical	30 ☐ Bone and/or joint	70 ☐ Peritoneal
22 ☐ Lymphatic: Intrathoracic	40 ☐ Genitourinary	80 ☐ Other*
		90 ☐ Site not stated

MAJOROTHER
*If site is "Other," enter anatomic code (see list)

16. Additional site of disease: ADDLSITE

00 ☐ Pulmonary	23 ☐ Lymphatic: Other	50 ☐ Miliary
10 ☐ Pleural	29 ☐ Lymphatic: Unknown	60 ☐ Meningeal
21 ☐ Lymphatic: Cervical	30 ☐ Bone and/or joint	70 ☐ Peritoneal
22 ☐ Lymphatic: Intrathoracic	40 ☐ Genitourinary	80 ☐ Other*

ADDLOTHER
*If site is "Other," enter anatomic code (see list)

If more than one additional site, check here. ☐ 88: ADDLMORE

17. Sputum smear: SPSMEAR
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown

18. Sputum culture: SPCULTURE
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown

19. Microscopic exam of tissue and other body fluids: MICROEXAM
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown

If positive, enter anatomic code(s) (see list): MICROANAT1, MICROANAT2

20. Culture of tissue and other body fluids: CULTOTHER
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown

If positive, enter anatomic code(s) (see list): CULTANAT1, CULTANAT2

21. Chest X-ray: XRAY
1 ☐ Normal 2 ☐ Abnormal 3 ☐ Not done 9 ☐ Unknown

If abnormal *(check one)*: ABNORMALITY
1 ☐ Cavitary
2 ☐ Noncavitary consistent with TB
3 ☐ Noncavitary ***not*** consistent with TB

If abnormal *(check one)*: XRAYSTATUS
1 ☐ Stable
2 ☐ Worsening
3 ☐ Improving
9 ☐ Unknown

22. Tuberculin (Mantoux) skin test at diagnosis: TBTEST
1 ☐ Positive 3 ☐ Not done
2 ☐ Negative 9 ☐ Unknown

Millimeters of induration: INDURATION

If Negative, was patient anergic: ANERGY
1 ☐ Yes 2 ☐ No 9 ☐ Unknown

Information contained on this form which would permit identification of any individual has been collected with a guarantee that it will be held in strict confidence, will be used only for surveillance purposes, and will not be disclosed or released without the consent of the individual in accordance with Section 308(d) of the Public Health Service Act (42 U.S.C. 242m).

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REPORT OF VERIFIED CASE OF TUBERCULOSIS—Page 2 of 2

23. HIV status: **NOT APPLICABLE**

24. Homeless within the past year
0 ☐ No 1 ☐ Yes 9 ☐ Unknown
HOMELESS

25. Resident of correctional facility at the time of diagnosis **CORRECTION**
0 ☐ No 1 ☐ Yes 9 ☐ Unknown
If yes, 1 ☐ Federal prison 3 ☐ Local jail **CORFACILITY** 5 ☐ Other correctional facility
Jurisdiction of jail: _____
2 ☐ State prison 4 ☐ Juvenile correctional facility 9 ☐ Unknown

26. Resident of long-term care facility at time of diagnosis 0 ☐ No 1 ☐ Yes 9 ☐ Unknown **LONGTERM**
If yes, 1 ☐ Nursing home 4 ☐ Mental health residential facility 6 ☐ Other long-term care facility
2 ☐ Hospital-based facility 5 ☐ Alcohol or drug treatment facility 9 ☐ Unknown **LONGTERMFACILITY**
3 ☐ Residential facility

27. Initial drug regimen

		NO	YES	UNK.			NO	YES	UNK.			NO	YES	UNK.
Isoniazid	INITINH	0 ☐	1 ☐	9 ☐	Ethionamide	INITETH	0 ☐	1 ☐	9 ☐	Amikacin	INITAM	0 ☐	1 ☐	9 ☐
Rifampin	INITRIF	0 ☐	1 ☐	9 ☐	Kanamycin	INITKAN	0 ☐	1 ☐	9 ☐	Rifabutin	INITRIB	0 ☐	1 ☐	9 ☐
Pyrazinamide	INITPZA	0 ☐	1 ☐	9 ☐	Cycloserine	INITCYC	0 ☐	1 ☐	9 ☐	Ciprofloxacin	INITCIP	0 ☐	1 ☐	9 ☐
Ethambutol	INITEMB	0 ☐	1 ☐	9 ☐	Capreomycin	INITCAP	0 ☐	1 ☐	9 ☐	Ofloxacin	INITOFL	0 ☐	1 ☐	9 ☐
Streptomycin	INITSM	0 ☐	1 ☐	9 ☐	Para-Amino Salicylic Acid	INITPAS	0 ☐	1 ☐	9 ☐	Other	INITOTH	0 ☐	1 ☐	9 ☐

28. Date therapy started
Month Day Year
RXDATE

29. Injecting drug use within past year **INJECT**
0 ☐ No 1 ☐ Yes 9 ☐ Unknown

30. Non-injecting drug use within past year **NONINJECT**
0 ☐ No 1 ☐ Yes 9 ☐ Unknown

31. Excess alcohol use within past year **ALCOHOL**
0 ☐ No 1 ☐ Yes 9 ☐ Unknown

32. Occupation *(check all that apply within the past 24 months)*
1 ☐ Health care worker **OCCHCW**
2 ☐ Correctional employee **OCCCORR**
3 ☐ Migratory agricultural worker **OCCMIG**
4 ☐ Other occupation **OCCOTHER**
5 ☐ Not employed within past 24 months **OCCNOT**
9 ☐ Unknown **OCCUNK**

RVCT User Field: HIV testing offered **UHIVTEST**
Was HIV testing offered during the course of TB evaluation or treatment?
0 ☐ No 1 ☐ Yes 9 ☐ Unknown
If no, please indicate reason in comments field below.

RVCT User Field: AIDS match performed **UMATCH**
1 ☐ AIDS registry match was performed and the AIDS number ***was*** found
2 ☐ AIDS registry match was performed and AIDS number was ***not*** found
3 ☐ Registry match is pending
4 ☐ AIDS registry match was ***not*** performed
9 ☐ Unknown
If AIDS match was found, provide the state HARS HIV/AIDS patient number: **UHARSNUM**

Comments
COMMENTS

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TB Registry Data Dictionary: TIMS

		Usage				
TIMS Field Name	**Description**	**Value**	**Value Label**	**Type**	**Length**	**Calculated?**
abnormality	q 21b chest x-ray: cavitary status	1 =	Cavitary	char	1	
		2 =	Noncavitary consistent with TB			
		3 =	Noncavitary NOT consistent with TB			
addlmore	q 16c additional site: more than one	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
addlother	q 16b additional site of disease: other		SEE ADDITIONAL VALUES	char	2	
addlsite	q 16a additional site of disease		SEE ADDITIONAL VALUES	char	22	
ageatrept	calculated variable: age at report			num	8	YES
agegroup	calculated variable: Five (5) year age groups		SEE ADDITIONAL VALUES	num	8	YES
alcohol	q 31 excess alcohol use in past year	0 =	No	char	1	
		1 =	Yes			
		8 =	Not Applicable			
		9 =	Unknown			
anergy	q 22c Mantoux skin test: anergy	1 =	Yes	char	1	
		2 =	No			
		9 =	Unknown			
amind	q 9 race: american indian or alaskan native	0 =	No	char	1	
		1 =	Yes			
asian	q 9 race: asian	0 =	No	char	1	
		1 =	Yes			
asianext	q 9 race: asian, specify extended asian race code		SEE ADDITIONAL VALUES	char	6	
birthdate	q 7 date of birth			num	8	
birthdateunk	date of birth unknown			char	1	
black	q 9 race: black	0 =	No	char	1	
		1 =	Yes			
city	q 4a city			char	21	
citylimits	q 4b city: within city limits	1 =	Yes	char	1	
		2 =	No			
		9 =	Unknown			
clientid	clientid: unique internal identifier for this Client			char	16	
cnegdate	q 35c first negative sputum date			num	8	
cnegdateunk	q 35c first negative sputum date is unknown			char	1	
comments	comments (RVCT) descriptive					
convert	q 35a sputum culture conversion	0 =	No	char	1	
		1 =	Yes			
		8 =	Not Applicable			
		9 =	Unknown			

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
corfacility	q 25b correctional facility type	1 =	Federal	char	1	
		2 =	State			
		3 =	Local			
		4 =	Juvenile			
		5 =	Other			
		8 =	Not Applicable			
		9 =	Unknown			
correction	q 25a correctional facility resident	0 =	No	char	1	
		1 =	Yes			
		8 =	Not Applicable			
		9 =	Unknown			
countdate	q 6 month-year counted			num	8	
countdateunk	q 6 month-year counted is unknown			char	1	
county	q 4c county			char	21	
cposdate	q 35b first positive sputum date			num	8	
cposdateunk	q 35b first positive sputum date is unknown			char	1	
cultanat1	q 20b tissue culture: anatomic site 1		SEE ADDITIONAL VALUES	char	2	
cultanat2	q 20b tissue culture: anatomic site 2		SEE ADDITIONAL VALUES	char	2	
cultother	q 20a culture of tissue or other fluids	1 =	Positive	char	1	
		2 =	Negative			
		3 =	Not Done			
		9 =	Unknown			
datecreatervct	date RVCT was submitted to the Registry					
datecreateFU1	date FU1 was submitted to the Registry					
datecreateFU2	date FU2 was submitted to the Registry					
dateenteredus	q 12 month-year arrived in us			num	8	
dateenteredusunk	q 12 date entered us is unknown			char	20	
datesubm	q 3 date submitted			num	8	
datesubmunk	q 3 date submitted is unknown					
diagstatus	q 13 vital status at diagnosis of tb	1 =	Alive	char	1	
		2 =	Dead			
		9 =	Unknown			
dirsite	q 39b site of directly observed therapy	1 =	In the clinic or other facility	char	1	
		2 =	In the field			
		3 =	Both in the facility and in the field			
		9 =	Unknown			
dirther	q 39a directly observed therapy	0 =	No, SAT	char	1	
		1 =	Yes, Totally DOT			
		2 =	Yes, Both DOT and SAT			
		9 =	Unknown			
dirweeks	q 39c weeks of directly observed therapy			num	8	
ethnic	q 10 hispanic origin	1 =	Hispanic	char	1	
		2 =	Not Hispanic			
		9 =	Unknown			
firstname	client's first name					

followrep1	comments (FU1) descriptive					

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
follow2	comments (FU2) descriptive					
fsuscam	q 41k final susceptibility: amikacin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsusccap	q 41i final susceptibility: capreomycin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsusccip	q 41m final susceptibility:ciprofloxacin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsusccyc	q 41h final susceptibility: cycloserine	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsuscdate	q 40b date final isolate collected			num	8	
fsuscdateunk	q 40b date final isolate collected unknown			char	1	
fsuscemb	q 41d final susceptibility: ethambutol	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsusceth	q 41f final susceptibility: ethionamide	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsuscinh	q 41a final susceptibility: isoniazid	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsusckan	q 41g final susceptibility: kanamycin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsuscofl	q 41n final susceptibility: ofloxacin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsuscoth	q 41p final susceptibility: other	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsuscpas	q 41j final susceptibility: pas acid	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			

		9 =	Unknown			

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
fsuscpza	q 41c final susceptibility: pyrazinamide	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsuscrib	q 41l final susceptibility: rifabutin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsuscrif	q 41b final susceptibility: rifampin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsuscsm	q 41e final susceptibility: streptomycin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
fsustest	q 40a follow-up drug susceptibility done	0 =	No	char	1	
		1 =	Yes			
		8 =	Not Applicable			
		9 =	Unknown			
homeless	q 24 homeless in last year	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
induration	q 22b mantoux test: induration			num	8	
initam	q 27k initial regimen: amikacin	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initcap	q 27i initial regimen: capreomycin	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initcip	q 27m initial regimen: ciprofloxacin	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initcyc	q 27h initial regimen: cycloserine	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initdrc	calculated variable: initial regimen	0 =	No drugs	char	1	YES
		1 =	One drug			
		2 =	INH, RIF, PZA and EMB or SM			
		3 =	INH, RIF and PZA			
		4 =	INH and RIF			
		5 =	Any other multiple drug combo			
		9 =	Unknown			
initemb	q 27d initial regimen: ethambutol	0 =	No	char	1	

		1 =	Yes			
		9 =	Unknown			

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
initeth	q 27f initial regimen: ethionamide	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initinh	q 27a initial regimen: isoniazid	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initkan	q 27g initial regimen: kanamycin	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initofl	q 27n initial regimen: ofloxacin	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initoth	q 27o initial regimen: other	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initpas	q 27j initial regimen: pas acid	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initpza	q 27c initial regimen: pyrazinamide	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initrib	q 27l initial regimen: rifabutine	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initrif	q 27b initial regimen: rifampin	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
initsm	q 27e initial regimen: streptomycin	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
inject	q 29 injecting drug use in past year	0 =	No	char	1	
		1 =	Yes			
		9 =	Unknown			
isuscam	q 34k susceptibility: amikacin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isusccap	q 34i susceptibility: capreomycin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
isusccip	q 34m susceptibility: ciprofloxacin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isusccyc	q 34h susceptibility: cycloserine	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isuscemb	q 34d susceptibility: ethambutol	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isusceth	q 34f susceptibility: ethionamide	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isuscinh	q 34a susceptibility: isoniazid	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isusckan	q 34g susceptibility: kanamycin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isuscofl	q 34n susceptibility: ofloxacin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isuscoth	q 34o susceptibility: other	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isuscpas	q 34j susceptibility: pas acid	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isuscpza	q 34c susceptibility: pyrazinamide	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isuscrib	q 34l susceptibility: rifabutine	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
isuscrif	q 34b susceptibility: rifampin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isuscsm	q 34e susceptibility: streptomycin	1 =	Resistant	char	1	
		2 =	Susceptible			
		3 =	Not Done			
		9 =	Unknown			
isusctest	q 33a initial drug susceptibility test	0 =	No	char	1	
		1 =	Yes			
		8 =	Not Applicable			
		9 =	Unknown			
isusdate	q 33b date initial isolate collected			num	8	
isusdateunk	q 33b date initial isolate collected is unknown			char	1	
lastname	client's last name					
lastupdatefu1	last date the follow-up 1 report was updated			num	8	
lastupdatefu2	last date the follow-up 2 report was updated			num	8	
lastupdateRVCT	last date the RVCT was updated			num	8	
locaseno	q 2b city/county case number			char	9	
longtermfacility	q 26b long term care type	1 =	Nursing Home	char	1	
		2 =	Hospital			
		3 =	Residential			
		4 =	Mental Health			
		5 =	Alcohol Drug			
		6 =	Other			
		8 =	Not Applicable			
		9 =	Unknown			
longterm	q 26a resident of long-term care	0 =	No	char	1	
		1 =	Yes			
		8 =	Not Applicable			
		9 =	Unknown			
majorother	q 15b major site of disease: other		SEE ADDITIONAL VALUES	char	2	
majorsite	q 15a major site of disease		SEE ADDITIONAL VALUES	char	2	
microanat1	q 19b microscopic exam: anatomic site 1		SEE ADDITIONAL VALUES	char	2	
microanat2	q 19c microscopic exam: anatomic site 2		SEE ADDITIONAL VALUES	char	2	
microexam	q 19a microscopic exam	0 =	No	char	1	
		1 =	Yes			
		8 =	Not Applicable			
		9 =	Unknown			
middlename	client's middle name					
nahaw	q 9 race: native hawiian or other pacific islander	0 =	No	char	1	
		1 =	Yes			
nahawext	q 9 race: native hawaiian/PI, specify		SEE ADDITIONAL VALUES	char	6	
nation	q 11b country of origin: other		SEE ADDITIONAL VALUES	char	3	

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
noninject	q 30 non-injecting drug use past year	0 =	No	char	1	
		1 =	Yes			
		8 =	Not Applicable			
		9 =	Unknown			
occcorr	q 32b correctional employee	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
occhcw	q 32a health care worker	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
occmig	q 32c migratory agricultural worker	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
occnot	q 32e ocupation: not employed	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
occother	q 32d occupation: other	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
occunk	q 32f occupation: unknown	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
prevagain	q 14c more than one previous diagnosis	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
prevyearunk	q 14b year of previous diagnosis unknown			char	1	
prevtb	q 14a previous diagnosis of tb	1 =	Yes	char	1	
		2 =	No			
		9 =	Unknown			
prevyear	q 14b year of previous diagnosis			char	8	
provtype	q 38 type of health care provider	1 =	Health Dept.	char	1	
		2 =	Private/Other			
		3 =	Both Health Dept. and Private/Other			
racecalc	q 9a race	1 =	American Indian/Alaska Native only	char	1	YES
		2 =	Asian only			
		3 =	Black only			
		4 =	Native Hawaiian/Pacific Islander only			
		5 =	White only			
		8 =	More than one race reported			
		9 =	Unknown race			
raceunk	q9 race: Unknown	0 =	No	char	1	
		1 =	Yes			
reportdate	q 5 month-year reported			num	8	
rxdate	q 28 date therapy started			num	8	

rxdateunk	date therapy started unknown			char	1	

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
sex	q 8 sex	1 =	Male	char	1	
		2 =	Female			
siteofdisease	calculated variable: site of disease	1 =	Pulmonary			YES
		2 =	Extrapulmonary			
		3 =	Both			
		8 =	Site not stated			
		9 =	Missing			
soundex	soundex code			char	4	
spculture	q 18 sputum culture	1 =	Positive	char	1	
		2 =	Negative			
		3 =	Not Done			
		9 =	Unknown			
spsmear	q 17 sputum smear	1 =	Positive	char	1	
		2 =	Negative			
		3 =	Not Done			
		9 =	Unknown			
stcaseno	q 2a state case number			char	9	
stoptherunk	date therapy stopped unknown			char	1	
stopreas	q 37 reason therapy stopped	1 =	Completed	char	1	
		2 =	Moved			
		3 =	Lost			
		4 =	Uncooperative or Refused			
		5 =	Not TB			
		6 =	Died			
		7 =	Other			
		9 =	Unknown			
stopther	q 36 date therapy stopped			num	8	
tbtest	q 22a mantoux test at diagnosis	1 =	Positive	char	1	
		2 =	Negative			
		3 =	Not Done			
		9 =	Unknown			
udest	rvct user field: moved destination		SEE ADDITIONAL VALUES	char	45	
			Codes ('02', '03'…'90') for LHJs, full names for US states (ARIZONA...WYOMING) , and full names for countries (CHINA, MEXICO, etc.)			
ucount	rvct user field: full count date			num	8	
uhivtest	rvct user field: hiv testing offered	0 =	HIV test not offered	char	45	
		1 =	HIV test offered			
		9 =	Unknown			
ujailjur	q 25c local jail: jurisdiction of jail		SEE ADDITIONAL VALUES	char	2	

TIMS Field Name	Description	Value	Value Label	Type	Length	Calculated?
umatch		1 =	AIDS match performed, AIDS number was found	char	1	
		2 =	AIDS match performed, no AIDS number found			
		3 =	AIDS registry match pending			
		4 =	No AIDS registry match was performed			
		5 =	Unknown			
uharsnum	HARS number					
ureport	rvct user field: full report date			num	8	
uscitizen	q 11a country of origin: us	" " =	Blank	char	1	
		1 =	Yes			
		9 =	Unknown			
vercount	Do you want to count this patient at CDC as a verified case of TB?	" " =	Blank=Pending or Not Applicable	char	1	
		1 =	Yes			
		2 =	No			
vercrit	calculated variable: case verification	1 =	Positive Culture	char	1	YES
		2 =	Positive Smear/Tissue			
		3 =	Clinical Case Definition			
		4 =	Verified by a Provider Diagnosis			
		5 =	Suspect Case			
white	q9 race: white	0 =	No	char	1	
		1 =	Yes			
xray	q 21a chest x-ray	1 =	Normal	char	1	
		2 =	Abnormal			
		3 =	Not Done			
		9 =	Unknown			
xraystatus	q 21c chest x-ray: condition status	1 =	Stable	char	1	
		2 =	Worsening			
		3 =	Improving			
		9 =	Unknown			
zipcode	q 4d zip code			char	5	
zipsuffix	q 4e zip code: suffix			char	4	

TIMS variable name	value (Anatomic Codes acceptable for "Site of Disease: 80 Other" are **bolded**.)		
addlothe	**00 = Skin and Skin appendages**	**49 = Stomach**	
cultana1	**01 = Subcutaneous Tissue**	**50 = Small Intestine - Duodenum**	
cultana2	**02 = Breast**	**51 = Small Intestine - Jejunum & Ileum**	
majoroth	03 = Milk	**52 = Appendix**	
microan1	**04 = Bone Marrow**	**53 = Colon**	
microan2	**05 = Spleen**	**54 = Rectum**	
	06 = Blood	**55 = Anus**	
	07 = Lymph Node	56 = Gastric Aspirate	
	08 = Bone (Not otherwise specified)	57 = Gastrointestinal Contents (Feces)	
	09 = Skeletal System (Bones of head, rib cage, and vertebral column)	58 = Omentum and Peritoneum	
	10 = Skeletal System (Bones of shoulder, girdle, pelvis, and extremities)	59 = Peritoneal Fluid	
	11 = Soft Tissue (Not otherwise specified)	60 = Kidney	
	12 = Soft Tissue (Muscles of head, neck, mouth and upper extremity)	61 = Renal Pelvis	
	13 = Soft Tissue (Muscles of trunk, perineum, and lower extremity)	62 = Ureter	
	14 = Tendon and Tendon Sheath	63 = Urinary Bladder	
	15 = Ligament and Fascia	64 = Urethra	
	16 = Joints (Synovial Tissue)	65 = Penis	
	17 = Synovial Fluid	66 = Prostate and Seminal Vesicle	
	18 = Nose	67 = Testis	
	19 = Accessory Sinus	68 = Epididymis, Vas Deferens, Spermatic Cord and Scrotum	
	20 = Nasopharynx	69 = Urine	
	21 = Epiglottis and Larynx	70 = Male Genital Fluids	
	22 = Trachea	71 = Vulva, Labia, Clitoris, and Bartholin s Gland	
	23 = Bronchus	72 = Vagina	
	24 = Bronchiole	73 = Uterus	
	25 = Lung	74 = Cervix	
	26 = Pleura	75 = Endometrium	
	27 = Upper Respiratory Fluids	76 = Myometrium	
	28 = Bronchial Fluid	77 = Fallopian Tube, Broad Ligament, Parametrium, and Paraovarian Region	
	29 = Pleural Fluid	78 = Ovary	
	30 = Pericardium	79 = Female Genital Fluids	
	31 = Heart	**80 = Placenta, Umbilical Cord, and Implantation Site**	
	32 = Cardiac Valve	**81 = Fetus and Embryo**	
	33 = Pericardial Fluid	**82 = Pituitary Gland**	
	34 = Blood Vessel	**83 = Adrenal Gland**	
	35 = Mouth	**84 = Thyroid or Parathyroid Gland(s)**	
	36 = Lip	**85 = Thymus**	
	37 = Tongue	86 = CFS (Cerebrospinal Fluid)	
	38 = Tooth, Gum and Supporting Structures of the Tooth	87 = Meninges, Dural Sinus, Choroid Plexus	
	39 = Salivary Gland	**88 = Brain**	
	40 = Liver	**89 = Spinal Cord**	
	41 = Gallbladder	**90 = Cranial, Spinal and Peripheral Nerve**	
	42 = Extra hepatic Bile Duct	**91 = Eye and Ear Appendages**	
	43 = Pancreas	**92 = Ear and Mastoid Cells**	
	44 = Saliva	93 = Pus	
	45 = Bile and Pancreatic Fluid	**94 = Other**	
	46 = Pharynx, Oropharynx, and Hypopharynx	95 = Multiple sites	
	47 = Tonsils and Adenoids	99 = Unknown	
	48 = Esophagus		

TIMS variable name	value		
majorsit	00 = Pulmonary	40 = Genitourinary	
	10 = Pleural	50 = Miliary	
	21 = Lymph: Cvc	60 = Meningeal	
	22 = Lymph: Int	70 = Peritoneal	
	23 = Lymph: Oth	80 = Other	
	29 = Lymph: Unk	90 = Not Stated	
	30 = Bone		
agegroup	1 = 0 to 4 years	10 = 45 to 49 years	
	2 = 5 to 9 years	11 = 50 to 54 years	
	3 = 10 to 14 years	12 = 55 to 59 years	
	4 = 15 to 19 years	13 = 60 to 64 years	
	5 = 20 to 24 years	14 = 65 to 69 years	
	6 = 25 to 29 years	15 = 70 to 74 years	
	7 = 30 to 34 years	16 = 75 to 79 years	
	8 = 35 to 39 years	17 = 80 to 84 years	
	9 = 40 to 44 years	18 = 85+ years	

TIMS variable name	value		
jurisdic	60 = Alameda	31 = Placer	
ujailjur	65 = Berkeley	32 = Plumas	
	02 = Alpine	33 = Riverside	
	03 = Amador	34 = Sacramento	
	04 = Butte	35 = San Benito	
	05 = Calaveras	36 = San Bernardino	
	06 = Colusa	80 = San Diego	
	07 = Contra Costa	90 = San Francisco	
	08 = Del Norte	39 = San Joaquin	
	09 = El Dorado	40 = San Luis Obispo	
	10 = Fresno	41 = San Mateo	
	11 = Glenn	42 = Santa Barbara	
	12 = Humboldt	43 = Santa Clara	
	13 = Imperial	44 = Santa Cruz	
	14 = Inyo	45 = Shasta	
	15 = Kern	46 = Sierra	
	16 = Kings	47 = Siskiyou	
	17 = Lake	48 = Solano	
	18 = Lassen	49 = Sonoma	
	70 = Los Angeles	50 = Stanislaus	
	75 = Long Beach	51 = Sutter	
	76 = Pasadena	52 = Tehama	
	20 = Madera	53 = Trinity	
	21 = Marin	54 = Tulare	
	22 = Mariposa	55 = Tuolumne	
	23 = Mendocino	56 = Ventura	
	24 = Merced	57 = Yolo	
	25 = Modoc	58 = Yuba	
	26 = Mono		
	27 = Monterey		
	28 = Napa		
	29 = Nevada		
	30 = Orange		

TIMS variable name	value Country Name, Alpha Code, and FIPS Codes		
nation	Afghanistan AF 110	Cameroon CM 257	
	Albania AL 120	Canada CA 260	
	Algeria AG 125	Cape Verde CV 264	
	American Samoa AQ 060	Cayman Islands CJ 268	
	Andorra AN 140	Central African Republic CT 269	
	Angola AO 141	Chad CD 273	
	Anguilla AV 142	Chile CI 275	
	Antarctica AY 143	China CH 280	
	Antigua and Barbuda AC 149	Christmas Island KT 516	
	Argentina AR 150	Clipperton Island IP 282	
	Armenia AM 135	Cocos (Keeling) Islands CK 284	
	Aruba AA 100	Colombia CO 285	
	Ashmore and Cartier Islands AT 155	Comoros CN 286	
	Australia AS 160	Congo CF 290	
	Austria AU 165	Cook Islands CW 293	
	Azerbaijan AJ 115	Coral Sea Islands CR 294	
	Bahamas, The BF 180	Costa Rica CS 295	
	Bahrain BA 181	Croatia HR 440	
	Baker Island FQ 064	Cuba CU 300	
	Bangladesh BG 182	Cyprus CY 305	
	Barbados BB 184	Czech Republic EZ 310	
	Bassas Da India BS 187	Czechoslovakia CZ 309	
	Belarus BO 211	Denmark DA 315	
	Belgium BE 190	Djibouti DJ 317	
	Belize BH 227	Dominica DO 318	
	Benin BN 311	Dominican Republic DR 320	
	Bermuda BD 195	Ecuador EC 325	
	Bhutan BT 200	Egypt EG 922	
	Bolivia BL 205	El Salvador ES 330	
	Bosnia and Herzegovina BK 185	Equatorial Guinea EK 332	
	Botswana BC 210	Estonia EN 331	
	Bouvet Island BV 212	Ethiopia ET 335	
	British Indian Ocean Territories IO 228	Europa Island EU 334	
	Brazil BR 220	Falkland (Is Malvinas) FK 337	
	British Virgin Islands VI 231	Faroe Islands FO 336	
	Brunei BX 232	Fed States Micronesia FM 063	
	Bulgaria BU 245	Fiji FJ 338	
	Burkina (Upper Volta) UV 927	Finland FI 340	
	Burma BM 250	Fr So & Antarctic Lands FS 369	
	Burundi BY 252	France FR 350	
	Cambodia CB 255	French Guiana FG 355	

TIMS variable name	value Country Name, Alpha Code, and FIPS Codes		
nation	French Polynesia FP 367	Juan De Nova Island JU 497	
	Gabon GB 388	Kazakhstan KZ 525	
	Gambia, The GA 389	Kenya KE 505	
	Gaza Strip GZ 393	Kingman Reef KQ 068	
	Georgia GG 390	Kiribati KR 398	
	Germany GM 394	Korea, Republic Of KS 515	
	Ghana GH 396	Korea, Democratic Peoples Rep KN 514	
	Gibraltar GI 397	Kuwait KU 520	
	Glorioso Islands GO 399	Kyrgyzstan KG 510	
	Greece GR 400	Laos LA 530	
	Greenland GL 405	Latvia LG 541	
	Grenada GJ 406	Lebanon LE 540	
	Guadeloupe GP 407	Lesotho LT 543	
	Guam GU 066	Liberia LI 545	
	Guatemala GT 415	Libya LY 550	
	Guernsey GK 416	Liechtenstein LS 553	
	Guinea GV 417	Lithuania LH 542	
	Guinea-Bissau PU 737	Luxembourg LU 570	
	Guyana GY 418	Macau MC 573	
	Haiti HA 420	Macedonia MK 574	
	Heard Island & McDonald Islands HM 424	Madagascar MA 575	
	Honduras HO 430	Malawi MI 577	
	Hong Kong HK 435	Malaysia MY 580	
	Howland Island HQ 065	Maldives MV 583	
	Hungary HU 445	Mali ML 585	
	Iceland IC 450	Malta MT 590	
	India IN 455	Man, Isle Of IM 588	
	Indonesia ID 458	Marshall Islands RM 073	
	Iran IR 460	Martinique MB 591	
	Iraq IZ 465	Mauritania MR 592	
	Iraq-S Arabia Neutral Zone IY 467	Mauritius MP 593	
	Ireland EI 470	Mayotte MF 594	
	Israel IS 475	Mexico MX 595	
	Italy IT 480	Midway Island MQ 071	
	Ivory Coast IV 485	Moldova MD 576	
	Jamaica JM 487	Monaco MN 607	
	Jan Mayen JN 488	Mongolia MG 608	
	Japan JA 490	Montenegro MW 612	
	Jarvis Island DQ 062	Montserrat MH 609	
	Jersey JE 495	Morocco MO 610	
	Johnston Atoll JQ 067	Mozambique MZ 615	
	Jordan JO 500	Namibia WA 821	

TIMS variable name	value Country Name, Alpha Code, and FIPS Codes		
nation	Nauru NR 621	Slovenia SI 789	
	Navassa Island BQ 061	Solomon Islands BP 229	
	Netherlands NL 630	Somalia SO 800	
	Netherlands Antilles NT 640	South Africa SF 801	
	New Caledonia NC 645	Soviet Union UR 824	
	New Zealand NZ 660	Spain SP 830	
	Nicaragua NU 665	Spratly Islands PG 833	
	Niger NG 667	Sri Lanka CE 272	
	Nigeria NI 670	St. Lucia ST 770	
	Niue NE 672	St. Helena SH 765	
	Norfolk Island NF 683	St. Kitts and Nevis SC 763	
	Northern Mariana Islands CQ 069	St. Pierre and Miquelon SB 773	
	Norway NO 685	St. Vincent/Grenadines VC 775	
	Not Specified 99 999	Sudan SU 835	
	Oman MU 616	Suriname NS 840	
	Pakistan PK 700	Svalbard SV 845	
	Palmyra Atoll LQ 070	Swaziland WZ 847	
	Panama PM 710	Sweden SW 850	
	Papua New Guinea PP 712	Switzerland SZ 855	
	Paracel Islands PF 714	Syria SY 858	
	Paraguay PA 715	Taiwan TW 281	
	Peru PE 720	Tajikistan TI 784	
	Philippines RP 725	Tanzania, United Republic Of TZ 865	
	Pitcairn Islands PC 727	Thailand TH 875	
	Poland PL 730	Togo TO 883	
	Portugal PO 735	Tokelau TL 884	
	Portuguese Timor PT 738	Tonga TN 886	
	Puerto Rico RQ 001	Trinidad and Tobago TD 887	
	Qatar QA 747	Tromelin Island TE 889	
	Reunion RE 750	Trust Territories Of Pacific (Palau) PS 075	
	Romania RO 755	Tunisia TS 890	
	Russia RS 825	Turkey TU 905	
	Rwanda RW 758	Turkmenistan TX 909	
	S.Georgia/S.Sandwich Islands SX 953	Turks and Caicos Islands TK 906	
	San Marino SM 782	Tuvalu TV 908	
	Sao Tome and Principe TP 783	U.S. Minor Outlying Islands UM 074	
	Saudi Arabia SA 785	US Misc Pacific Islands IQ 077	
	Senegal SG 787	Uganda UG 910	
	Serbia SR 810	Ukraine UP 928	
	Seychelles SE 788	United Arab Emirates TC 888	
	Sierra Leone SL 790	United Kingdom UK 925	
	Singapore SN 795	Uruguay UY 930	
	Slovak Republic LO 548	Uzbekistan UZ 931	

TIMS variable name	value Country Name, Alpha Code, and FIPS Codes		
nation	Vanuatu (New Hebrides) NH 651		
	Vatican City VT 934		
	Venezuela VE 940		
	Vietnam VM 945		
	Virgin Islands VQ 078		
	Wake Island WQ 080		
	Wallis and Futuna WF 950		
	West Bank WE 955		
	Western Sahara WI 831		
	Western Samoa WS 963		
	Yemen YM 965		
	Yugoslavia YO 970		
	Zaire CG 291		
	Zambia ZA 990		
	Zimbabwe ZI 818		

TIMS variable name	Appendix C.4: TB Branch Forms, Data Dictionaries, and Reports value		
asianext	2028-9 = Asian 2029-7 = Asian Indian 2030-5 = Bangladeshi		
	2031-3 = Bhutanese 2032-1 = Burmese 2033-9 = Cambodian		
	2034-7 = Chinese 2035-4 = Taiwanese 2036-2 = Filipino		
	2037-0 = Hmong 2038-8 = Indonesian 2039-6 = Japanese		
	2040-4 = Korean 2041-2 = Laotian 2042-0 = Malaysian		
	2043-8 = Okinawan 2044-6 = Pakistani 2045-3 = Sri Lankan		
	2046-1 = Thai 2047-9 = Vietnamese 2048-7 = Iwo Jiman		
	2049-5 = Maldivian 2050-3 = Nepalese 2051-1 = Singaporean		
	2052-9 = Madagascar ;		
nahawext	2076-8 = Nat Haw/Pac Isl 2078-4 = Polynesian 2079-2 = Native Hawaiian		
	2080-0 = Samoan 2081-8 = Tahitian 2082-6 = Tongan		
	2083-4 = Tokelauan 2085-9 = Micronesian 2086-7 = Guam or Chamorro		
	2087-5 = Guamanian 2083-3 = Chamorro 2089-1 = Mariana Isl		
	2090-9 = Marshallese 2091-7 = Palauan 2092-5 = Carolinian		
	2093-3 = Kosraean 2094-1 = Pohnpeian 2095-8 = Saipanese		
	2096-6 = Kiribati 2097-4 = Chuukese 2098-2 = Yapese		
	2100-6 = Melanesian 2101-4 = Fijian 2102-2 = Papua N Guinean		
	2103-0 = Solomon Islander 2104-8 = New Hebrides		
	2500-7 = Other Pac Islnder ;		

State of California—Health and Human Services Agency

Department of Health Services

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Form to be included in Proof of Concept (POC) Demonstration

U. S. Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention (CDC)
Atlanta, Georgia 30333

REPORT OF VERIFIED CASE OF TUBERCULOSIS

Initial Drug Susceptibility Report

(Follow-Up Report—1)

Patient name (last) (first) (M.I.)	Address (number, street)	City	State	ZIP code

SOUNDEX	State reporting	Year counted	State case number
	Specify: _____		City/county case number
	Alpha state code		

Submit this report for all culture-positive cases.

33. Initial Drug Susceptibility Results

Was drug susceptibility testing done? 0 ☐ No 1 ☐ Yes 9 ☐ Unknown

If answer is no or unknown, do not complete rest of report.

If yes, enter date first isolate collected for which drug susceptibility was done: Month ☐☐ Day ☐☐ Year ☐☐☐☐

34. Susceptibility Results

	Resistant	Susceptible	Not Done	Unknown
Isoniazid	1 ☐	2 ☐	3 ☐	9 ☐
Rifampin	1 ☐	2 ☐	3 ☐	9 ☐
Pyrazinamide	1 ☐	2 ☐	3 ☐	9 ☐
Ethambutol	1 ☐	2 ☐	3 ☐	9 ☐
Streptomycin	1 ☐	2 ☐	3 ☐	9 ☐
Ethionamide	1 ☐	2 ☐	3 ☐	9 ☐
Kanamycin	1 ☐	2 ☐	3 ☐	9 ☐
Cycloserine	1 ☐	2 ☐	3 ☐	9 ☐
Capreomycin	1 ☐	2 ☐	3 ☐	9 ☐
Para-Amino Salicyclic Acid	1 ☐	2 ☐	3 ☐	9 ☐
Amikacin	1 ☐	2 ☐	3 ☐	9 ☐
Rifabutin	1 ☐	2 ☐	3 ☐	9 ☐
Ciprofloxacin	1 ☐	2 ☐	3 ☐	9 ☐
Ofloxacin	1 ☐	2 ☐	3 ☐	9 ☐
Other	1 ☐	2 ☐	3 ☐	9 ☐

Comments

Information contained on this form which would permit identification of any individual has been collected with a guarantee that it will be held in strict confidence, will be used only for surveillance purposes, and will not be disclosed or released without the consent of the individual in accordance with Section 308(d) of the Public Health Service Act (42 U.S.C. 242m).

DHS 8620 B (10/00)

State of California—Health and Human Services Agency

Department of Health Services

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

U. S. Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention (CDC)
Atlanta, Georgia 30333

REPORT OF VERIFIED CASE OF TUBERCULOSIS

Initial Drug Susceptibility Report

(Follow-Up Report—1)

Patient name (last) (first) (M.I.)	Address (number, street)	City	State	ZIP code

SOUNDEX	State reporting	Year counted	State case number	City/county case number
	Specify: STATE		STCASENO	LOCASENO
	Alpha state code			

Submit this report for all culture-positive cases.

33. Initial Drug Susceptibility Results

Was drug susceptibility testing done? 0 ☐ No 1 ☐ Yes 9 ☐ Unknown ISUSCTEST

If answer is no or unknown, do not complete rest of report.

If yes, enter date first isolate collected for which drug susceptibility was done: Month Day Year ISUSCDATE

34. Susceptibility Results

		Resistant	Susceptible	Not Done	Unknown
ISUSCINH	Isoniazid	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCRIF	Rifampin	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCPZA	Pyrazinamide	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCEMB	Ethambutol	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCSM	Streptomycin	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCETH	Ethionamide	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCKAN	Kanamycin	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCCYC	Cycloserine	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCCAP	Capreomycin	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCPAS	Para-Amino Salicyclic Acid	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCAM	Amikacin	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCRIB	Rifabutin	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCCIP	Ciprofloxacin	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCOFL	Ofloxacin	1 ☐	2 ☐	3 ☐	9 ☐
ISUSCOTH	Other	1 ☐	2 ☐	3 ☐	9 ☐

Comments

FOLLOWREP1

Information contained on this form which would permit identification of any individual has been collected with a guarantee that it will be held in strict confidence, will be used only for surveillance purposes, and will not be disclosed or released without the consent of the individual in accordance with Section 308(d) of the Public Health Service Act (42 U.S.C. 242m).

DHS 8620 B (10/00)

State of California—Health and Human Services Agency

Department of Health Services

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Form to be included in Proof of Concept (POC) Demonstration

U. S. Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention (CDC)
Atlanta, Georgia 30333

REPORT OF VERIFIED CASE OF TUBERCULOSIS

Case Completion Report

(Follow-Up Report—2)

Patient name (last) (first) (M.I.)	Address (number, street)	City	State	ZIP code

SOUNDEX ☐☐☐☐

State reporting
Specify: _____
Alpha state code ☐☐

Year counted ☐☐☐☐

State case number ☐☐☐☐☐☐☐☐☐☐
City/county case number ☐☐☐☐☐☐☐☐☐☐

35. Sputum culture conversion documented

0 ☐ No 1 ☐ Yes 9 ☐ Unknown

If Yes, date specimen collected on initial positive sputum culture
Month ☐☐ Day ☐☐ Year ☐☐☐☐

If Yes, date specimen collected on first consistently negative culture
Month ☐☐ Day ☐☐ Year ☐☐☐☐

36. Date therapy stopped
Month ☐☐ Day ☐☐ Year ☐☐☐☐

37. Reason therapy stopped

1 ☐ Completed therapy
2 ☐ Moved
Destination: _____
3 ☐ Lost
4 ☐ Uncooperative or refused
5 ☐ Not TB
6 ☐ Died
7 ☐ Other
9 ☐ Unknown

38. Type of health care provider

1 ☐ Health department
2 ☐ Private/other
3 ☐ Both health department and private/other

39. Directly observed therapy

0 ☐ No, totally self-administered
1 ☐ Yes, totally directly observed
2 ☐ Yes, both directly observed and self-administered
9 ☐ Unknown

If yes, give site(s) of directly observed therapy

1 ☐ In clinic or other facility
2 ☐ In the field
3 ☐ Both in facility and in the field
9 ☐ Unknown

Number of weeks of directly observed therapy ☐☐☐ Weeks

40. Final drug susceptibility results

Was follow-up drug susceptibility testing done?

0 ☐ No 1 ☐ Yes 9 ☐ Unknown

If no or unknown, do not complete rest of report.

If yes, enter date final isolate collected for which drug susceptibility was done:
Month ☐☐ Day ☐☐ Year ☐☐☐☐

41. Final susceptibility results

	Resistant	Susceptible	Not Done	Unknown
Isoniazid	1 ☐	2 ☐	3 ☐	9 ☐
Rifampin	1 ☐	2 ☐	3 ☐	9 ☐
Pyrazinamide	1 ☐	2 ☐	3 ☐	9 ☐
Ethambutol	1 ☐	2 ☐	3 ☐	9 ☐
Streptomycin	1 ☐	2 ☐	3 ☐	9 ☐
Ethionamide	1 ☐	2 ☐	3 ☐	9 ☐
Kanamycin	1 ☐	2 ☐	3 ☐	9 ☐
Cycloserine	1 ☐	2 ☐	3 ☐	9 ☐
Capreomycin	1 ☐	2 ☐	3 ☐	9 ☐
Para-Amino Salicylic Acid	1 ☐	2 ☐	3 ☐	9 ☐
Amikacin	1 ☐	2 ☐	3 ☐	9 ☐
Rifabutin	1 ☐	2 ☐	3 ☐	9 ☐
Ciprofloxacin	1 ☐	2 ☐	3 ☐	9 ☐
Ofloxacin	1 ☐	2 ☐	3 ☐	9 ☐
Other	1 ☐	2 ☐	3 ☐	9 ☐

Comments

_____

_____

_____

_____

Information contained on this form which would permit identification of any individual has been collected with a guarantee that it will be held in strict confidence, will be used only for surveillance purposes, and will not be disclosed or released without the consent of the individual in accordance with Section 308(d) of the Public Health Service Act (42 U.S.C. 242m).

DHS 8620 C (10/00)

State of California—Health and Human Services Agency

Department of Health Services

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

U. S. Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention (CDC)
Atlanta, Georgia 30333

REPORT OF VERIFIED CASE OF TUBERCULOSIS

Case Completion Report

(Follow-Up Report—2)

Patient name (last) (first) (M.I.)	Address (number, street)	City	State	ZIP code

SOUNDEX ☐☐☐☐

State reporting
Specify: _____ STATE
Alpha state code ☐☐

Year counted ☐☐☐☐

State case number ☐☐☐☐☐☐☐☐☐☐ STCASENO
City/county case number ☐☐☐☐☐☐☐☐☐☐ LOCASENO

35. Sputum culture conversion documented CONVERT
0 ☐ No 1 ☐ Yes 9 ☐ Unknown

If Yes, date specimen collected on initial positive sputum culture
Month Day Year ☐☐ ☐☐ ☐☐☐☐ CPOSDATE

If Yes, date specimen collected on first consistently negative culture
Month Day Year ☐☐ ☐☐ ☐☐☐☐ CNEGDATE

36. Date therapy stopped
Month Day Year ☐☐ ☐☐ ☐☐☐☐ STOPTHER

37. Reason therapy stopped STOPREAS
1 ☐ Completed therapy
2 ☐ Moved Destination: _____ MOVEDEST
3 ☐ Lost
4 ☐ Uncooperative or refused
5 ☐ Not TB
6 ☐ Died
7 ☐ Other
9 ☐ Unknown

38. Type of health care provider
1 ☐ Health department
2 ☐ Private/other
3 ☐ Both health department and private/other
PROVTYPE

39. Directly observed therapy
0 ☐ No, totally self-administered
1 ☐ Yes, totally directly observed
2 ☐ Yes, both directly observed and self-administered
9 ☐ Unknown DIRTHER

If yes, give site(s) of directly observed therapy
1 ☐ In clinic or other facility DIRSITE
2 ☐ In the field
3 ☐ Both in facility and in the field
9 ☐ Unknown

Number of weeks of directly observed therapy Weeks ☐☐☐ DIRWEEKS

40. Final drug susceptibility results FSUSTEST
Was follow-up drug susceptibility testing done?
0 ☐ No 1 ☐ Yes 9 ☐ Unknown
If no or unknown, do not complete rest of report.

If yes, enter date final isolate collected for which drug susceptibility was done:
Month Day Year ☐☐ ☐☐ ☐☐☐☐ FSUSCDATE

41. Final susceptibility results

		Resistant	Susceptible	Not Done	Unknown
Isoniazid	FSUSCINH	1 ☐	2 ☐	3 ☐	9 ☐
Rifampin	FSUSCRIF	1 ☐	2 ☐	3 ☐	9 ☐
Pyrazinamide	FSUSCPZA	☐	2 ☐	3 ☐	9 ☐
Ethambutol	FSUSCEMB	1 ☐	2 ☐	3 ☐	9 ☐
Streptomycin	FSUSCSM	1 ☐	2 ☐	3 ☐	9 ☐
Ethionamide	FSUSCETH	1 ☐	2 ☐	3 ☐	9 ☐
Kanamycin	FSUSCKAN	1 ☐	2 ☐	3 ☐	9 ☐
Cycloserine	FSUSCCYC	1 ☐	2 ☐	3 ☐	9 ☐

		Resistant	Susceptible	Not Done	Unknown
Capreomycin	FSUSCCAP	1 ☐	2 ☐	3 ☐	9 ☐
Para-Amino Salicylic Acid	FSUSCPAS	2 ☐	3 ☐	9 ☐	
Amikacin	FSUSCAM	1 ☐	2 ☐	3 ☐	9 ☐
Rifabutin	FSUSCRIB	1 ☐	2 ☐	3 ☐	9 ☐
Ciprofloxacin	FSUSCCIP	1 ☐	2 ☐	3 ☐	9 ☐
Ofloxacin	FSUSCOFL	1 ☐	2 ☐	3 ☐	9 ☐
Other	FSUSCOTH	1 ☐	2 ☐	3 ☐	9 ☐

Comments

FOLLOW2

Information contained on this form which would permit identification of any individual has been collected with a guarantee that it will be held in strict confidence, will be used only for surveillance purposes, and will not be disclosed or released without the consent of the individual in accordance with Section 308(d) of the Public Health Service Act (42 U.S.C. 242m).

DHS 8620 C (10/00)

Confidential
California Department of Health Services (CDHS)
Tuberculosis Control Branch

MDR-TB Service

CHECKLIST TO HALT MDR-TB SPREAD

Case Name _____

DOB _____

1) Has expert consultation been obtained? Y__ N__
   - Consultant name & Institution_____
   - Date of initial Consultation __/__/__

2) Initial Smear/Culture Results (current episode of tuberculosis)

Specimen Site	Smear	Culture	Date Obtained
_____	_____	_____	/__/__
_____	_____	_____	/__/__
_____	_____	_____	/__/__

3) Cavitary Disease? Y__ N__

4) Patient currently treated with:
   - injectable drug (Streptomycin, Kanamycin, Amikacin, Capreomycin) Y__ N__
   - Fluoroquinolone Y__ N__
   - # additional meds (please circle) 0 1 2 3 4 >4

5) Are meds being given by DOT at least once daily; five days/week? Y__ N__

6) Is patient infectious? Y__ N__
   - if yes, is patient in respiratory isolation? Y__ N__
     - if yes, where (check all that apply):
       - ☐ Home
       - ☐ Hospital
       - ☐ Other (please specify)_____

7) If in home isolation, are there any uninfected persons present in the home? Y__ N__
   - if yes, is anyone < 5 years old or immunocompromised? Y__ N__

8) Have contacts been identified? Y__ N__
   # of contacts identified _____
   # of contacts evaluated to initial ATS classification_____

Responder's Name (please print)_____ Date of Response__/__/__

Responder's Phone Number_____ E-mail_____

Title (please print)_____

Please fax this checklist to Corrine Stuart, Communicable Disease Representative at confidential Fax 510-620-3035

Rev 07/06

California Department of Health Services (CDHS)
Tuberculosis Control Branch

MDR-TB Service

***Mission Statement*: The California MDR-TB Service was established to enhance the detection, treatment, and management of MDR-TB cases throughout the State of California.**

What is MDR-TB?

Multidrug-resistant TB (MDR-TB) is defined as tuberculosis (TB) disease with resistance to at least isoniazid and rifampin, two of the most potent first-line anti-TB drugs.

Background/Need:

Despite a decline in TB incidence in California over the past decade, MDR-TB remains a threat to TB control efforts. Incident MDR-TB cases dropped from 39 in 1999 to 26 in 2001. However, 43 cases were reported in 2002. These 43 cases represented 1.9% of the TB cases reported in 2002 and the highest proportion on record since drug susceptibility test reporting was mandated.

Due to the complexity of MDR-TB cases, the extended duration of treatment, and the costs incurred during treatment, local health jurisdictions (LHJs) face greater challenges with the management of MDR-TB than with drug-sensitive disease. Lack of experience with MDR-TB, limited public health resources, difficulty accessing timely second-line drug susceptibility testing, and difficulty with procurement of second-line drugs are some of the factors that pose further obstacles to prompt identification and treatment of MDR-TB cases in California.

Purpose:

To respond to the challenge of managing complex MDR-TB cases with limited resources, the Tuberculosis Control Branch (TBCB) developed the MDR-TB Service.

This service is designed to help local TB programs ensure that transmission of MDR-TB is interrupted and that each case has the best chance of cure. The service provides support to LHJs in the areas of clinical and case management, laboratory services, surveillance, and access to medications for treating MDR-TB. Specifically, this service provides consultation on both clinical and public health aspects pertaining to the management of MDR-TB cases and their contacts.

The MDR-TB Service Team:

Three physicians, a nurse consultant, an epidemiologist and a consulting communicable disease representative (CCDR) support the MDR-TB Service. As a team, they bring over 30 years of TB experience, a diverse set of skills, and a multidisciplinary approach to the management of TB including:

- Front-line public health TB case management
- Private sector clinical experience
- Board certification in specialties including Infectious Disease, Internal Medicine, and Pediatrics
- Understanding of local, state and national laboratory processes
- Multi-cultural competency
- Working relationship with an informal network of national MDR-TB experts

Whom do I call for assistance?

For further information or to request assistance, contact:

Gisela Schecter, MD, MPH @ (510) 620-3056
gschecte@dhs.ca.gov
or
Ann Raftery, RN, PHN @ (916) 202-0639
araftery@dhs.ca.gov

California Department of Health Services

California Department of Health Services (CDHS)
Tuberculosis Control Branch

Services provided:

The MDR-TB Service team offers clinical consultation, assistance with second-line drug testing and result retrieval, assistance with drug procurement, access to MDR-TB specific "tools" for monitoring cases, as well as referral/coordination with other services. The team meets weekly to review and provide follow-up consultation on active MDR-TB cases. More specifically, you can expect the following:

- Telephone consultation/feedback within one working day
- Comprehensive written consultation and recommendations within 1 week
- Facilitation of isolate transfer and susceptibility result retrieval
- Containment recommendations to reduce transmission
- Recommendations for evaluation of contacts and treatment of MDR-LTBI
- Ongoing assistance to ensure appropriate treatment planning with a goal of culture conversion and cure, toxicity monitoring, treatment completion, and identification of barriers to treatment adherence
- Information on obtaining second-line drugs and accessing patient assistance programs
- Conferral regarding challenging treatment decisions with other clinical experts
- Information regarding transportation and referrals to specialized centers (e.g., National Jewish Medical & Research Center)
- Referrals for information (e.g., civil detention program, TB Medi-Cal) to other TBCB resources

Resources provided:

- MDR-TB specific "tools" (e.g. drug fact sheets, clinical monitoring tools such as a "drug-o-gram," toxicity monitoring charts, contact evaluation and monitoring templates)
- Clinical references related to specific challenges (e.g., treatment of contacts, use of fluoroquinolones in children, interpretation of drug levels, and use of third-line drugs)
- Contact and cost information for laboratories that perform susceptibility testing and therapeutic drug monitoring

What is expected from you?

If you request a consultation, you will be asked to provide the MDR-TB Service with the following information via fax or email:

- *At the time of initial consultation:* The case's clinical reports, test results, containment plan and treatment history including dates and specifics of previous drug treatment regimens
- *Updates* including monthly sputum smear/culture, drug susceptibility results, toxicity monitoring, serum drug levels, lab results, chest x-ray reports, weight as well as any changes in the patient's drug regimen or containment plan
- The number of contacts elicited and evaluated, results of evaluation, limited background information, and treatment regimen, if indicated

How to obtain MDR-TB Consultation:

Contact Dr. Gisela Schecter or Ms. Ann Raftery at the number(s) listed below.

Whom do I call for assistance?

For further information or to request assistance, contact:

Gisela Schecter, MD, MPH @ (510) 620-3056
gschecte@dhs.ca.gov
or
Ann Raftery, RN, PHN @ (916) 202-0639
araftery@dhs.ca.gov

Followup Worksheet

A. Demographic Information

A1. Name (Last, First, Middle)	A2. Alien #:	A3. Visa Type:	A4. Initial U.S. Entry Date:
A5. Age: / A6. Gender:	A7. DOB:	A8. TB Class:	A9. Class Condition:
A10. Country of Examination:	A11. Country of Birth:		
A12. Data Entry Q-Station: / A13. Officer in Charge:	A14. Q-Station Phone:		
A15c.	A16a. Sponsor Agency Name: A16b. Sponsor Agency Phone: A16c. Sponsor Agency Address:		

B. Jurisdictional Information

B1. Destination State: B2. Jurisdiction: B3. Jurisdiction Phone #:

C. U.S. Evaluation

C1. Date of Initial U.S. Medical Evaluation:

C2a. TST Placed: ☐ Yes ☐ No ☐ Unknown
C2b. TST Placement Date:
C2c. TST mm:
C2d. TST Interpretation: ☐ Positive ☐ Negative ☐ Unknown
C2e. History of Previous Positive TST ☐

C3a. Quantiferon (QFT) Test: ☐ Yes ☐ No ☐ Unknown
C3b. QFT Collection Date:
C3c. QFT Result: ☐ Positive ☐ Negative ☐ Indeterminate ☐ Unknown

U.S. Review of Overseas CXR	Domestic CXR	Comparison
C4. Overseas CXR Available? ☐ Yes ☐ No ☐ Not Verifiable	C7. U.S. CXR Done? ☐ Yes ☐ No C8. Date of U.S. CXR:	C11. U.S. CXR Comparison to Overseas CXR: ☐ Stable ☐ Worsening ☐ Improving ☐ Unknown
C5. U.S. Interpretation of Overseas CX ☐ Normal ☐ Abnormal ☐ Poor Quality ☐ Unknown	C9. Interpretation of U.S. CXR: ☐ Normal ☐ Abnormal ☐ Unknown	
C6. Overseas CXR Abnormal Findings: ☐ Abnormal, not TB ☐ Cavity ☐ Fibrosis ☐ Infiltrate ☐ Granuloma(ta) ☐ Adenopathy ☐ Other (Specify)	C10. U.S. CXR Abnormal Findings: ☐ Abnormal, not TB ☐ Cavity ☐ Fibrosis ☐ Infiltrate ☐ Granuloma(ta) ☐ Adenopathy ☐ Other (Specify)	

C12. U.S. Microscopy / Bacteriology ☐ Specimen not collected in U.S.

Spec #	Specimen Source	Date	AFB Smear Result	Culture Result	Drug Resistance (DR)
1			☐ Not Done ☐ Positive ☐ Negative ☐ Unknown	☐ Not Done ☐ NTM ☐ Negative ☐ Contaminated ☐ MTB Complex ☐ Unknown	☐ Not Done ☐ Mono-RIF ☐ No DR ☐ MDR-TB ☐ Mono-INH ☐ Other DR
2			☐ Not Done ☐ Positive ☐ Negative ☐ Unknown	☐ Not Done ☐ NTM ☐ Negative ☐ Contaminated ☐ MTB Complex ☐ Unknown	☐ Not Done ☐ Mono-RIF ☐ No DR ☐ MDR-TB ☐ Mono-INH ☐ Other DR
3			☐ Not Done ☐ Positive ☐ Negative ☐ Unknown	☐ Not Done ☐ NTM ☐ Negative ☐ Contaminated ☐ MTB Complex ☐ Unknown	☐ Not Done ☐ Mono-RIF ☐ No DR ☐ MDR-TB ☐ Mono-INH ☐ Other DR

Followup Worksheet (Cont)

U.S. Review of Overseas Treatment

C13. Overseas Treatment Recommended by Panel Physician:	C14. US Review of TB Disease Overseas Treatment:	C15. Arrived on Treatment:	C16. Completed Treatment Overseas:
☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown If Yes ☐ Patient-Reported ☐ Panel Physician-Documented ☐ Both	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown

C17. Overseas Treatment Concerns: ☐ Yes ☐ No

D. Disposition

D1. Disposition Date:

D2. Evaluation Disposition:

☐ Completed Evaluation	☐ Initiated Evaluation / Not Completed	☐ Did Not Initiate Evaluation
☐ Treatment Recommended ☐ No Treatment Recommended	☐ Moved within U.S. ☐ Lost to Follow-up ☐ Returned to Country of Origin ☐ Refused Evaluation ☐ Died ☐ Other, specify	☐ Not Located ☐ Moved within U.S. ☐ Lost to Follow-up ☐ Returned to Country of Origin ☐ Refused Evaluation ☐ Died ☐ Unknown ☐ Other, specify

D3. Diagnosis:
☐ Class 0 - No TB exposure, not infected ☐ Class 1 - TB exposure, no evidence of infection
☐ Class 2 - TB infection, no disease ☐ Class 3 - TB, active disease
☐ Class 4 - TB, inactive disease ☐ Pulmonary ☐ Extrapulmonary ☐ Both Sites

D4. ☐ RVCT Reported D5. RVCT #:

E. U.S. Treatment

E1. U.S. Treatment Initiated: E2. U.S. Treatment Start Date:	E3. U.S. Treatment Completed: E4. U.S. Treatment End Date:
☐ No Treatment ☐ Active Disease ☐ LTBI ☐ Unknown	☐ Yes ☐ No ☐ Unknown

F. Comments

G. Physician Signature

_____ Panel Physician Signature: _____ Date (mm-dd-yyyy)

Overseas Medical Exam Data Download Field Elements
Data Dictionary
EDN Release 2.5

Business Rules for Data Manipulation:

1. Historical data, as a result of edits, are not included in the data download file.
2. The file number is to be used to derive the sponsor data for each individual record. Therefore, the sponsor data will appear for each individual record.
3. An internal identifier will be included in the overseas medical exam record and the worksheet record for each individual in order to link the two data groups.
4. For elements in which the user has indicated Yes/No or True/False, "1" equals "Yes/True" and "0"= "No/False".

Field #	Data Element Name	Data Element Definition
1.		**System Identifier to provide link to the Worksheet Evaluation record.**
2.	Transportation Company Name	
3.	Flight Number	
4.	Date of Arrival	
5.	Port of Arrival	
6.	Station Name	
7.	Officer Name	

Field #	Data Element Name	Data Element Definition
8.	Station Name	
9.	Alien Number	
10.	Last Name	
11.	First Name	
12.	Middle Name	
13.	VOLAG Name	
14.	Sponsor Affiliate Organization Name	
15.	Sponsor Last Name	
16.	Sponsor First Name	
17.	Sponsor Middle Name	
18.	Sponsor Address Line 1	
19.	Sponsor Address Line 2	
20.	Sponsor Zip Code	

Field #	Data Element Name	Data Element Definition
21.	Sponsor City	
22.	Sponsor State	
23.	Sponsor Business Phone	
24.	Sponsor Fax Number	
25.	Sponsor Email Address	
26.	Relative Last Name	
27.	Relative First Name	
28.	Relative Middle Name	
29.	Relative Address Line 1	
30.	Relative Address Line 2	
31.	Relative Zip Code	
32.	Relative City	
33.	Relative State	

Field #	Data Element Name	Data Element Definition
34.	Relative Business Phone	
35.	Relative Fax Number	
36.	Relative Email Address	
37.	Local Co-Sponsor Affiliate Organization Name	
38.	Local Co-Sponsor Last Name	
39.	Local Co-Sponsor First Name	
40.	Local Co-Sponsor Middle Name	
41.	Local Co-Sponsor Address Line 1	
42.	Local Co-Sponsor Address Line 2	
43.	Local Co-Sponsor Zip Code	
44.	Local Co-Sponsor City	
45.	Local Co-Sponsor State	
46.	Local Co-Sponsor Business Phone	

Field #	Data Element Name	Data Element Definition
47.	Local Co-Sponsor Fax Number	
48.	Local Co-Sponsor Email Address	

Worksheet (Evaluation) Data Download Field Elements
Data Dictionary

Field Number	Field # on form	Data Element Name	Data Element Definition
49.			**System Identifier to provide link to the Overseas Medical Exam record.**
50.	C1	Date of Initial U.S. Medical Evaluation	Month, day and year when the medical evaluation for the I/R was initiated by a U.S. medical provider resulting in initial diagnostic tests or medical assessment.
51.	C2a	TST placed	Placement of tuberculin skin test (TST) in the U.S. reflecting: • Yes • No • 'Unknown' – means a local reporter does not know if TST was placed
52.	C2b	TST placed date	Month, day and year when TST was placed.
53.	C2c	TST mm	Millimeters of induration for a tuberculin skin test provided in the U.S. (*2 digits: 01 - 20 mm*)
54.	C2d	TST interpretation	Result of U.S. TST reflecting: • 'Positive' - means that the patient is likely infected with M. Tuberculosis. • 'Negative' - means that the skin test did not meet current criteria for a positive test. • 'Unknown' - means it is not known whether the skin test was performed or the results are not known.
55.	C2e	History of previous positive TST	A patient self-report of a previous positive PPD
56.	C3a	Quantiferon (QFT)Test	Inquiry if patient received a quantiferon test in the U.S. for latent TB infection reflecting: • Yes

Field Number	Field # on form	Data Element Name	Data Element Definition
			• No • Unknown
57.	C3b	QFT collection date	Month, day and year when I/R received quantiferon test in the U.S.
58.	C3c	QFT Result	Result of a quantiferon test provided in the U.S. reflecting: • 'Positive' - means that the patient is probably infected with M. tuberculosis. • 'Negative' - means that the quantiferon test did not meet current criteria for a positive test. • 'Unknown' - means it is not known whether the quantiferon test was performed, or if the results are not known. • 'Indeterminate' - means the quantiferon test result is not defined
59.	C4	Overseas CXR available?	Inquiry if I/R provides the overseas chest radiograph to the U.S. medical provider reflecting: • 'Yes' - means the I/R provides his/her overseas chest radiograph to the U.S. medical provider during the diagnostic evaluation. • 'No' - means the I/R does not provide his/her overseas chest radiograph to the U.S. medical provider during the diagnostic evaluation. • 'Not Verifiable' – means that a chest radiograph has been provided to the U.S. medical provider, but not felt to belong to the applicant (i.e. fraudulent or mistaken radiograph)
60.	C5	U.S. Interpretation of Overseas CXR	U.S. interpretation of the overseas chest radiograph reflecting: • Normal • Abnormal • 'Poor quality' – means the radiograph is felt to be of substandard quality • 'Unknown' - means it is not known if the U.S interpretation of the overseas chest radiograph chest radiographs were done, or if the results of U.S interpretation of the overseas chest radiograph are unknown.
61.	C6	Overseas CXR Findings	Inquiry of Overseas CXR Findings reflecting: • No TB Abnormality • Infiltrate

Field Number	Field # on form	Data Element Name	Data Element Definition
			• Cavity • Isolated granuloma • Fibrosis
62.	C7	U.S. CXR done?	Inquiry if U.S. CXR done reflecting: • Yes • No
63.	C8	Date of U.S. CXR	Month, day and year the U.S. chest radiograph was taken
64.	C9	U.S. Interpretation of U.S. CXR	Interpretation of the U.S. radiograph reflecting: • Normal • Abnormal • 'Unknown' - means it is not know if chest radiographs were done or the results of chest radiographs are unknown.
65.	C10	U.S. CXR Abnormal Findings	Inquiry if the U.S. chest radiograph is abnormal, define the abnormality reflecting: • No Abnormality • Infiltrate • Cavity • Isolated Granuloma • Fibrosis
66.	C11	What is the Comparison?	Provide a comparison between the U.S. interpretation of the overseas chest radiograph and the U.S. chest radiograph reflecting: • 'Stable' - means findings are similar for overseas and U.S. CXR • 'Worsening' - means findings represent worsening TB disease for overseas versus stateside CXR comparison • 'Improving' - means findings represent improvement of TB diseases for overseas versus stateside CXR comparison • 'Unknown' - means interpretation of CXRS or comparison result unknown

Field Number	Field # on form	Data Element Name	Data Element Definition
67.	C12	Sputum not collected in U.S.	Check box
68.	C12 1a	Specimen #	Numbers 1-3 for each specimen entry (system generated with a maximum of three).
69.	C12 1b	Date	Month, day and year each sputum specimen was collected
70.	C12 1c	AFB Smear Result	U.S. sputum smear microscopy results reflecting: • 'Positive' – means results positive for Acid-Fast Bacilli • 'Negative' - means the results of all examinations (or the only examination) were negative for Acid Fast Bacilli. • 'Not Done' - means a sputum smear is known not to have been done. • 'Unknown' - means it is not known if a sputum smear was performed, or if the results are not known for a reason other than pending results (e.g., result was lost or specimen contaminated, and no other specimens can be obtained).
71.	C12 1d	Culture Result	U.S. sputum culture results reflecting: • 'Negative' - means the results all examinations (or the only examination) were negative for growth of mycobacterium • 'Contaminated' - means a sputum culture test for Acid-Fast Bacillus is known to have been contaminated. • 'Not Done' - means a sputum culture test for acid-fast bacillus is known not to have been done. • 'Unknown' means it is not known if sputum culture test for acid-fast bacillus was performed, or if the results are not known for a reason other than pending results (e.g., result was lost or no other specimens can be obtained). • 'MTB Complex' - means results are positive for growth of mycobacterium tuberculosis complex (M. TB, M. bovis, M. africanum) • 'NTM' - means results are positive for growth of non-tuberculosis mycobacterium
72.	C12 1e	Drug Resistance	U.S. sensitivity testing results for first line drugs reflecting: • None • 'Mono-INH' - means any specimen cultures resistant to Isoniazidalone (regardless of

Field Number	Field # on form	Data Element Name	Data Element Definition
			concentration level) • 'Mono-RIF' - means any specimen cultures resistant to Rifampin alone • 'MDR-TB' - means resistance to at least Isoniazid **and** Rifampin • 'other resistance' - means resistance to drugs other than Isoniazid or Rifampin
73.	C13	Overseas Treatment Recommended by Panel Physician	Overseas Treatment Recommended by Panel Physician reflecting: • 'Yes' - means treatment recommendation is documented on the DS forms/medical packet • 'No' - means treatment recommendation is not documented on the DS forms/medical packet • 'Unknown' - means it is not known if this information is documented
74.	C14	Overseas Treatment Initiated	Inquiry if the I/R started TB treatment overseas as documented by the panel physician reflecting: • 'Yes' - means I/R started TB treatment overseas. o Patient-Reported: patient reports that treatment was started o Panel Documented: treatment is documented on the DS forms o Both • 'No' - means I/R did not start TB treatment overseas. • 'Unknown' – means it is not known whether the I/R started TB treatment overseas.
75.	C15	On Treatment on Arrival	Inquiry if the I/R is on TB treatment on arrival to the U.S. reflecting: • 'Yes' - means the I/R was on TB treatment on arrival to the U.S. • 'No' - means the I/R was not on TB treatment on arrival to the U.S. • 'Unknown' - means it is not known whether the I/R is on TB treatment on arrival to the U.S.
76.	C16	Completed treatment overseas	Inquiry if the I/R completed TB treatment overseas as documented by the panel physicians reflecting: • 'Yes' - means I/R completed TB treatment overseas. • 'No' - means I/R did not complete TB treatment overseas. • 'Unknown' - means it is not known whether the I/R completed TB treatment overseas.
77.	C17	Overseas Treatment Concerns	Check 'Yes' if the local staff evaluation raises concerns about inadequate or inappropriate drug regimen, drug doses, or treatment length for overseas treatment

Field Number	Field # on form	Data Element Name	Data Element Definition
78.	D1	Disposition Date	Month, day and year when the evaluation disposition was determined
79.	D2	Evaluation Disposition	Disposition of the U.S. evaluation reflecting: • 'Completed evaluation' - means the evaluation has lead to a final TB diagnosis o Treatment Recommended o No treatment recommended • Initiated Evaluation/Not Completed o 'Moved within U.S.' – means the I/R was located, initiated an evaluation, but moved to another jurisdiction before completing the evaluation. Initial jurisdiction is able to provide locating information for the new jurisdiction o 'Lost to follow-up' - means the I/R was located, initiated an evaluation, but failed to return to complete the evaluation for reasons other than moving. o 'Returned to country of origin' - means the I/R was located, initiated an evaluation, and it is known that the I/R returned to their country of origin prior to: o 'Refused evaluation' - means the I/R was located but refused to initiate the U.S evaluation. o 'Died' - means the I/R was located, initiated an evaluation, but died prior to completing the U.S. evaluation. o 'Unknown' - means the I/R was located, initiated an evaluation, and the evaluation disposition of the I/R is not known. o 'Other' - means the means the I/R was located, initiated an evaluation, and evaluation disposition is another reason. Include this in the comments section. • Did not Initiate Evaluation o Not located o 'Moved within U.S.' - means the I/R was located, did not initiate an evaluation, and moved to another jurisdiction before initiating the evaluation. Initial jurisdiction is able to provide locating information for the new jurisdiction o 'Lost to follow-up' - means the I/R was located but did not initiate an evaluation for reasons other than moving. o 'Returned to country of origin' - means the I/R was located but did not initiate an

Field Number	Field # on form	Data Element Name	Data Element Definition
			evaluation because it is known that the I/R returned to their country of origin prior to: o 'Refused evaluation' - means the I/R was located but refused to initiate the U.S evaluation. o 'Died' - means the I/R was located but did not initiate evaluation due to death. o 'Unknown' - means the I/R was located. It is unknown why the evaluation was not initiated o 'Other' - means the I/R was located but did not initiate an evaluation for other reasons. Include this in the comments section.
80.	D3	Diagnosis	Final TB diagnosis reflecting: • 'Class 0' – means no exposure • 'Class 1' – means exposure but not latent TB infection • 'Class 2' – means latent TB infection • 'Class 3' – means active TB disease • 'Class 4' – means old, healed, inactive TB disease
81.	D4	RVCT reported	Inquiry if the evaluating locality is reporting this patient to the national TB surveillance system.
82.	D5	RVCT #	RVCT number
83.	E1	U.S. treatment initiated	U.S. treatment initiated: • 'No treatment' - means no TB treatment is recommended • 'Active disease' – means treatment for active TB disease is recommended. Please include diagnosis for extrapulmonary tuberculosis, and use comments field to provide additional diagnostic and treatment information. • 'LTBI' - means treatment for latent TB infection is recommended • 'Unknown' - means TB treatment recommendation is unknown
84.	E2	U.S. Treatment Start Date	Month, day and year U.S. treatment was started
85.	E3	U.S. Treatment	U.S. Treatment Completed reflecting:

Field Number	Field # on form	Data Element Name	Data Element Definition
		Completed	• 'Yes' – means the recommended Course of TB treatment has been completed, • 'No' - means the recommended course of TB treatment was not completed. • 'Unknown' – means treatment information is unknown
86.	E4	U.S. Treatment End Date	Month, day and year U.S. treatment was ended
87.	F	Comments	N/A

Control Type	Name and Order of fields	Validation Rule	Export
Label for Window	File Number		X
Text	File Number	Required - entered by user - file number is assigned to a family of aliens.	X
Label for section	Conveyance Information		
Drop Down (future)	Transportation Company Name	Required only when transportation type field value is 'International Flight'.	X
Numeric - up to 4 digits	Flight Number	Required only when transportation type field value is 'International Flight'.	X
Date	Date of Arrival	Required - Cannot be future date	X
Dropdown	Port of Arrival	Required	X
Dropdown	Transportation Type		X
Label for Section	Q-Station Information		
Text Only	Data Entry Person	Required - Default to data entry person based on login info	
Dropdown	Station Name	Required - Default value based on data entry person.	
Dropdown	Officer Name	Required - Default value based on data entry person.	
Label for section	Refugee Name List		
Column Name for refugee table format for names is the same as in the sponsor tab and immigran visa tab	Alien Number, Last Name, First Name, Middle Name	1. When duplicate is detected: If only alien number is duplicated, then warn the user to check the accuracy of the number, but do not prevent the entry of the duplicate. If alien full name AND alien number is duplicated, do not allow the entry. 2. Name should be auto-formatted to caps. 3. At least one one row is required. 4. All fields are required for each row EXCEPT A/P (Asylee/Parolle). If this box is selected, then file number is not required (this is specified in the Data Entry design document.	X

 Sponsor Entry Data Elements

Control Type	Name and Order of fields	Validation Rule	Export
Global Business Rule: At least one full address is required. Address 1, Zip Code, City and State			
Label for Section	Sponsor Information		
Text	Affiliate Organization Name	Required	X
Text only, allow spaces, hyphens and apostrophes.	Last Name		X
Text only, allow spaces and hyphens	First Name		X
Text only, allow spaces and hyphens	Middle Name		X
Text	Address Line 1		X
Text	Address Line 2		X
Numeric	Zip Code	Required	X
Dropdown	City	Required	X
Dropdown	State	Required	X
Numeric	Business Phone		X
Numeric	Fax Number		X
Text - allow special characters: @, -, _	Email Address		X
Label for Section	Local Co-Sponsor		
Text	Organization Name	Required	X
Text only, allow spaces, hyphens and apostrophes.	Last Name		X
Text only, allow spaces and hyphens	First Name		X
Text only, allow spaces and hyphens	Middle Name		X
Text	Address Line 1		X
Text	Address Line 2		X
Numeric	Zip Code	Required	X
Dropdown	City	Required	X
Dropdown	State	Required	X
Numeric	Business Phone		X
Numeric	Fax Number		X
Text - allow special characters: @, -, _	Email Address		X
Label for Section	Relative Information		

Text only, allow spaces, hyphens and apostrophes.	Last Name		X
Text only, allow spaces and hyphens	First Name		X
Text only, allow spaces and hyphens	Middle Name		X
Text	Address Line 1		X
Text	Address Line 2		X
Text	Zip Code	Required	X
Dropdown	City	Required	X
Dropdown	State	Required	X
Numeric	Business Phone		X
Numeric	Home Number	Required	X
Text - allow special characters: @, -, _	Email Address		X

Page 1 3/14/2007 Immigrant Visa Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
Numeric	1. Alien Number	If duplicate is detected, warn the user to check the accuracy of the number, but do not prevent the entry of the duplicate. Required	X
Text only, allow spaces, hyphens and apostrophes.	2. Last Name	Required	X
Text only, allow spaces and hyphens	3. First Name	Required	X
Text only, allow spaces and hyphens	4. Middle Name		X
Text only, allow spaces, hyphens and apostrophes.	5. Name in care of		X
Text	6. Street Address 1	Required	X
Text	7. Street Address 2		X
Numeric	8. Zip Code	Required	X
Dropdown	9. City	Required	X
Dropdown	10. State	Required	X
Date	11. Date of Arrival	Required	X
Dropdown	12. Port of Arrival	Required	X

Page 1 3/14/2007 Demographic Data Entry Field Elements

Control Type	Name and Order of fields	Validation Rule	Export
Read Only	Name Last First and Middle (previously selected)		X
Date	1. Birth Date (mm-dd-yyyy)	Required - do not allow future date	X
Dropdown	2. Sex	The system will not automatically select gender. Required	X
Dropdown - associate with Birthplace Country field (future)	3. Birthplace City		X
Dropdown	4. Birthplace Country	Required	X
Dropdown	5. Present Country	Required	X
Dropdown	6. Prior Country	Required	X
Dropdown - associate with US Counsil Country field (future)	7. US Consul (City)	Required	X
Dropdown	8. US Consul (Country)	Required	X
Text	9. Passport Number	Required	X
Text	10. Alien (Case Number)	Auto populated from the Immigrant Visa entry for Alien number.	X
Date	11. Date of Medical Exam (initial) (mm-dd-yyyy)	Do not allow future date	X
Date	12. Date of Prior Exam, if any (mm-dd-yyyy)	Do not allow future date	X
Date	13. Date Exam Expires *6 months from examination date, if Class A or TB condition exists, otherwise 12 months) (mm-dd-yyyy)	Required. Date cannot be BEFORE 'Date of Prior Exam' date value.	X
Dropdown - associate with Exam Place Country field (future)	14. Exam Place (City)	Required	X
Dropdown	15. Exam Place (Country)	Required	X
Text	16. Radiology Services Name	Not required	X
Dropdown	17. Screening Site Name	Required	X
Dropdown	18. Panel Physician Name	Dropdown populates based on the Screening Site Name selected.	X
Text	20. Lab Name for HIV Test	Not required	X
Text	21. Lab Name for Syphillis Test	Not required	X
Text	22. Lab Name for TB Test	Not required	X
Read Only	Data Entry Person	Autopopulated by system without it be editable.	X

Control Type	Name and Order of fields	Validation Rule	Export
Note: The numbers in the "Name and Order of Fields" column are not to be included in the interface. This is for reference only.			
Label	**Classification**		
Boolean	1. No apparent defect, disease or disability	Mutually exclusive - if chosen, no other boxes can be selected.	X
Label for Section and Boolean	**2. Class A Conditions**	If chosen, then no apparent defect cannot be chosen.	X
Boolean	3. TB Active, infectious (Class A, from Chest X-Ray worksheet)	If selected, the class B1 and B2 cannot be selected.	X
Boolean	4. Syphillis, untreated		X
Boolean	5. Chancroid, untreated		X
Boolean	6. Gonorrhea, untreated		X
Boolean	7. Granuloma inguinale, untreated		X
Boolean	8. Lymphogranuloma venereum, untreated		X
Boolean	9. Human immundeficiency virus (HIV)		X
Boolean	10. Hansen's disease, lepromatous or multibacillary		X
Boolean	11. Addiction or abuse of specific substance without harmful behavior. amphetamines, cannabis, cocaine, hallucinogens, inhalants, opioids, phencyclidines, sedative-hypnotics, and anxiolytics		X
Boolean	12. Any physical or mental disorder (including other substance-related disorder) with harmful behavior or history of such behavior likely to recur.		X
Boolean	**13. Class B Conditions**	If chosen, then no apparent defect cannot be chosen.	
Boolean	14. TB, active, noninfectious	If selected, the class A and B2 cannot be selected.	X
Label	Treatment		
Radio button	15. Treatment	Choose one: None, Partial, Completed.	X
Boolean	16. TB, inactive	If selected, the class A and B1 cannot be selected.	X
Label	Treatment		
Boolean	17. Treatment	Choose one: None, Partial, Completed.	X
Boolean	18. Syphillis (with residual deficit), treated within last year		X
Boolean	19. Other sexually transmitted infections, treated within last year	If selected, then comments in #23 must be entered.	X
Boolean	20. Current pregancy	Can only be selected if gender is female.	X
Numeric	21. Number of weeks pregnant	Number of weeks of pregancy, if applicable	X
Boolean	22. Other (specify or give details on checked conditions from worksheets)	If selected, then comments in #23 must be entered.	X
Command button	23. Add Comments for other	If 19 or 22 is selected, then comments must be added	

Control Type	Name and Order of fields	Validation Rule	Export
Boolean	25. Hansen's disease, prior treatment	Select either, "Blank", "Prior Treatment", or "tuberculiod, borderline or paucibacillary"	X
Boolean	26. Sustained, full remission of addction or abuse specifc* substances		X
Boolean	27. Any physical or mental disorder (excluding addiction or abuse of specific* substance but including other substance-related disorder) withou harmful behavior or history of such behavior unlikely to recur		X
Label	*amphetamines, cannabis, cocaine, hallucinogens, inhalants, opioids, phencyclidines, sedative-hypnotics, and anxiolytics		

Page 1 3/14/2007 Lab Findings Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
Label	**Syphillis**		
Boolean	1. Syphilis Test "Not Done"	1. If selected, then fields 2 - 15 are disabled. 2. If the alien is older than 15 years old (**calculated by date of birth and current date**) and the "**Not Done**" checkbox is selected, the user cannot leave the page without the flagging the record for review. 3. If "**Not Done**" is not selected, then **Screening and Confirmatory test names** are required.	X
Dropdown	2. Screening Test name	1. If a **Screening Test Name** is entered, then a **Screen Test Dates Run** and **Screening Test Result** is required.	X
Date	3. Screening Test Dates Run	Cannot be a future date	X
Dropdown - Positive or Negative	4. Screening Test Result	1. If both the **Screening and Comfirmatory result** is negative, then disable the treatment entry fields 10 - 15. 2. If both the **Screening and Confirmatory results** is positive, the user must indicated if the person was **treated** #10.	X
Text	5. Note for Screening Test Result		
Dropdown	6. Confirmatory Test name		X
Date	7. Confirmatory Test Dates Run	Cannot be a future date. Yoni to check dependency between screening	X
Dropdown - Positive or Negative	8. Confirmatory Test Result		X
Text	9. Note for Confirmatory Test Result		X
Dropdown - Yes or No	10. Treated	1. If **Yes** is selected, then a **Therapy** and **Benathine Penicillin** is required.	X
Label	11. Therapy		
Radio button	12. Benzathine penicillin 2.4 MU IM	**Benzathine** and **Other Treatment** cannot both be selected.	X
Radio button	13. Other Therapy	**Benzathine** and **Other Treatment** cannot both be selected.	X
Text	14. Other Therapy Note	If **Other Therapy** is selected, then a description of therapy must be entered here.	X
Date	15. Dates of three doses of pencillin	If **Benzathine penicillin** is selected, then **all three dates** are required. Dates need to be sequential and cannot be future dates.	X
Label	**HIV**		
Boolean	16. HIV Test "Not Done"	1. If selected, then fields 17-31 are disabled. 2. If the alien is older than 15 years old (**calculated by date of birth and Arrival date**) and the "**Not Done**" checkbox is selected, the user cannot leave the page without the flagging the record for review. 3. If "**Not Done**" is not selected, then the **Screening Test Date and result** is required.	X
Dropdown	17. Screening Test Name (Primary ELISA)		X
Date	18. Date of screening Test	Cannot be a future date.	X

Page 2 3/14/2007 Lab Findings Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
Dropdown - Negative, Positive, Indeterminate	19. Screening Test Result	1. If "**Indeterminate**" is selected then, the **Secondary test date and result** is required. 2. If **"Positive"** is selected then, the **confirmatory test result and date** is required.	X
Text	20. Screening Test Notes		X
Label	21. Display of Test Notes		
Label	22. Secondary Test Name (Secondary ELISA)		
Date	23. Date of Secondary Test	Cannot be a future date. If a **Secondary test date or result** is entered, then a **Screening test date and result** is required.	X
Dropdown - Negative, Positive, Indeterminate	24. Secondary Test Result		X
Text	25. Secondary Test Notes		X
Label	26. Display of Test Notes		
Label	27. Confirmatory Test Name (Western Blot)		
Date	28. Date of Confirmatory Test	Cannot be a future date. If a **Secondary test date or result** is entered, then a **Screening test date and result** is required.	X
Dropdown - Negative, Positive, Indeterminate	29. Confirmatory Test Result		X
Text	30. Confirmatory Test Notes		X
Label	31. Display of Test Notes		

Treatments Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
Label	Tuberculosis Treatment Regimen		
Label	Fill out if applicant has taken in the past, or is now taking TB medications. If drug doses or dates not known or not available, mark "unknown."		
Boolean	1. Therapy currently prescribed	If selected, then at least one **medication** must be selected.	X
Label	Medications		
Boolean	2. Isoniazid	If selected, then a **dose/interval and start date** must be entered.	X
Checkbox	Unknown	check if dose is unknown	
Text	3. Dose/Interval (i.e. mg/g dav)		X
Checkbox	Unknown	check if start date of doses is unknown.	
Date	4. Start Date (mm/dd/yyyy)	Cannot be a future date.	X
Checkbox	Unknown	check if end date of doses is unknown.	
Date	5. End Date (mm/dd/yyyy)	Cannot be a future date and cannot be BEFORE the start date.	X
Boolean	6. Rifampin	If selected, then a **dose/interval and start date** must be entered.	X
Checkbox	Unknown	check if dose is unknown	
Text	7. Dose/Interval (i.e. mg/g dav)		X
Checkbox	Unknown	check if start date of doses is unknown.	
Date	8. Start Date (mm/dd/yyyy)	Cannot be a future date.	X
Checkbox	Unknown	check if end date of doses is unknown.	
Date	9. End Date (mm/dd/yyyy)	Cannot be a future date and cannot be BEFORE the start date.	X
Boolean	10. Pyrazinamide	If selected, then a **dose/interval and start date** must be entered.	X
Checkbox	Unknown	check if dose is unknown	
Text	11. Dose/Interval (i.e. mg/g dav)		X
Checkbox	Unknown	check if start date of doses is unknown.	
Date	12. Start Date (mm/dd/yyyy)	Cannot be a future date.	X
Checkbox	Unknown	check if end date of doses is unknown.	
Date	13. End Date (mm/dd/yyyy)	Cannot be a future date and cannot be BEFORE the start date.	X
Boolean	14. Ethambutol	If selected, then a **dose/interval and start date** must be entered.	X
Checkbox	Unknown	check if dose is unknown	

Page 2 3/14/2007 Treatments Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
Text	15. Dose/Interval (i.e. mg/g dav)		X
Checkbox	Unknown	check if start date of doses is unknown.	
Date	16. Start Date (mm/dd/yyyy)	Cannot be a future date.	X
Checkbox	Unknown	check if end date of doses is unknown.	
Date	17. End Date (mm/dd/yyyy)	Cannot be a future date and cannot be BEFORE the start date.	X
Boolean	22. Streptomycin	If selected, then a **dose/interval and start date** must be entered.	X
Checkbox	Unknown	check if dose is unknown	
Text	23. Dose/Interval (i.e. mg/g dav)		X
Checkbox	Unknown	check if start date of doses is unknown.	
Date	24. Start Date (mm/dd/yyyy)	Cannot be a future date.	X
Checkbox	Unknown	check if end date of doses is unknown.	
Date	25. End Date (mm/dd/yyyy)	Cannot be a future date and cannot be BEFORE the start date.	X
Boolean	26. Other Specify	If selected, then **Medication Name 1, dose/interval and start/end date** must be entered.	X
Text	27. Medication Name 1		X
Checkbox	Unknown	check if dose is unknown	
Text	28. Dose/Interval (i.e. mg/g dav)		X
Checkbox	Unknown	check if start date of doses is unknown.	
Date	29. Start Date (mm/dd/yyyy)	Cannot be a future date.	X
Checkbox	Unknown	check if end date of doses is unknown.	
Date	30. End Date (mm/dd/yyyy)	Cannot be a future date and cannot be BEFORE the start date.	X
Text	31. Medication Name 2		X
Checkbox	Unknown	check if dose is unknown	
Text	32. Dose/Interval (i.e. mg/g dav)		X
Checkbox	Unknown	check if start date of doses is unknown.	
Date	33. Start Date (mm/dd/yyyy)	Cannot be a future date.	X
Checkbox	Unknown	check if end date of doses is unknown.	
Date	34. End Date (mm/dd/yyyy)	Cannot be a future date and cannot be BEFORE the start date.	X
Text	35. Medication Name 3		X
Checkbox	Unknown	check if dose is unknown	
Text	36. Dose/Interval (i.e. mg/g dav)		X
Checkbox	Unknown	check if date of doses is unknown.	

Page 3 3/14/2007 Treatments Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
Date	37. Start Date (mm/dd/yyyy)	Cannot be a future date.	X
Checkbox	Unknown	check if end date of doses is unknown.	
Date	38. End Date (mm/dd/yyyy)	Cannot be a future date and cannot be BEFORE the start date.	X
Numeric	39. Applicant's weight (kg)	Required if **Medication** is entered above. Numeric, 3 digit max	X
Text	Remarks		X

Page 1 3/14/2007 Vaccination Worksheet Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
Label	**Immunization Record**		
Label	**Vaccine**		
Label	**Vaccine History Transferred from a Written Record (list chronologically from left to right)**		
Label	**DT/DTP/Dtap**		
Date	Date Received (mm-dd-yyyy)	Cannot have future date. Dates should be in chronological order for each vaccination (on the same row). **This applies to all date fields below.**	X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Td**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X

Control Type	Name and Order of fields	Validation Rule	Export
	Not routinely available		X
	Not fall (flu) season		X
Label	**Polio (OPV/IPV)**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Measles (or MR or MMR)**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Mumps (or MMR)**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X

Control Type	Name and Order of fields	Validation Rule	Export
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Rubella (or MR or MMR)**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Hib (*Heamophilus Influenzae* type b)**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X

Control Type	Name and Order of fields	Validation Rule	Export
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Hepatitis B**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Varicella**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X

Control Type	Name and Order of fields	Validation Rule	Export
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Pneumococcal**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	**Influenza**		
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Date Received (mm-dd-yyyy)		X
Date	Vaccine Given by Panel Physician (mm-dd-yyyy)		X
Boolean	Completed Series		X
	If completed, is there varicella history		X
	If immune, date of lab test		X
Label	**Blanket Waiver(s) to be requested if vaccination not medically appropriate**		
	Not age appropriate		X
	Insufficient time interval		X
	Contra-indicated		X
	Not routinely available		X
	Not fall (flu) season		X
Label	Results		
Boolean	Vaccine history incomplete		X

 Vaccination Worksheet Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
	Applicant may be eligible for blanket waiver(s) because vaccination(s) not medically appropriate		X
	Applicant will request an individual waiver based on religious or moral convictions		X
Boolean	Vaccine history complete for each vaccine, all requirements met		X
Boolean	Applicant does not meet vaccination requirements for one or more vaccines and no waiver is requested		X
Text	Panel Physician		X
Date	Date (mm-dd-yyyy)		X

Medical History Tab/Panel Data Fields

Control Type	Name and Order of fields	Validation Rule	Export
Label	**Past Medical History**		
Label	Note: The following information has been self-reported, has not been verified by a physician, and should not be deemed medically definitive.		
Yes/No	Illness or injury requiring hospitalization (including psychiatric)		X
Label	**Cardiology**		
Radio button	Angina pectoris		X
Radio button	Hypertension (high blood pressure)		X
Radio button	Congenital heart disease		X
Label	**Pulmonology**		
Radio button	History of Tobacco Use		X
Radio button	Current Use of Tobacco		X
Radio button	Asthma		X
Radio button	Chronic obstructive pulmonary disease (emphysema)		X
Radio button	History of tuberculosis (TB) disease		X
Radio button	TB Treated		X
Radio button	Current TB symptoms		X
Label	**Neurology and Psychiatry**		
Radio button	History of stroke, with current impairment		X
Radio button	Seizure disorder		X
Radio button	Major impairment in learning, intelligence, selfcare, memory or communication		X
Radio button	Major mental disorder (including major depression, bipolar disorder, Schizophrenia, mental retardation)		X
Radio button	Use of drugs other than those required for medical reasons		X
Radio button	Addiction or abuse of specific substance (drug) *amphetamines, cannabis, cocaine, hallucinogens, inhalants, opiods, phencyclidines, sedative-hypnotics and anxiolytics.		X
Radio button	Other substance-related disorders (including alcohol addiction or abuse)		X
Radio button	Even taken action to end your life		X
Radio button	Ever caused SERIOUS injury to others, caused MAJOR property damage or had trouble with the law because of medical condition, mental disorder, or influence of alcohol or drugs.		X

Control Type	Name and Order of fields	Validation Rule	Export
Label	**Obstetrics and Sexually Transmitted Diseases**		
Radio button	Pregnancy		X
Text	Fundal Height: XXXXXX cm	Numeric	X
Date	Last menstrual period: mm-dd-yyyy	Date	X
Radio button	Sexual transmitted disease		X
Text	Specified disease: XXXXXXXXX		X
Label	**Endocrinology and Hematology**		
Radio button	Diabetes mellitus		X
Radio button	Thyroid disease		X
Radio button	History of malaria		X
Label	**Other**		
Radio button	Malignancy		X
Text	Specified: XXXXXXXXXXX		X
Radio button	Chronic renal disease		X
Radio button	Chronic hepatitis or other liver diseases		X
Radio button	Hansen's disease		X
Checkbox	Tuberculoid		X
Checkbox	Borderline		X
Checkbox	Lepromatous		X
Checkbox	Paucibacillary		X
Checkbox	Multibacilary		X
Radio button	Hansen's Disease Treated		X
Radio button	Visible disabilities (including loss of arms or legs)		X
Text	Specified: XXXXXXXXXXX		X
Radio button	Other requiring treatment		X
Text	Specified: XXXXXXXXXXX		X
Label	**Physical Examination**		
Radio button	Applicant appears to be providing unreliable or false information		X
Text (250 length)	Specify: XXXXXXXXXXX		
Numeric, up to 3 digits	Height: _____ cm	Numeric, max 3 digits	X
Numeric, allow decimal	Weight: _____ kg	Numeric, max 3 digits	X
Label	Visual Accuity at 20 feet:		
Numeric, up to 3 digits	Uncorrected L 20/ ____	Numeric, max 3 digits	X
Numeric, up to 3 digits	R 20/ _____	Numeric, max 3 digits	X
Numeric, up to 3 digits	Corrected L 20/ _____	Numeric, max 3 digits	X
Numeric, up to 3 digits	R 20/ ____	Numeric, max 3 digits	X
Numeric, up to 3 digits for each field	BP ___/____ (mmHg)	Numeric, max 3 digits	X
Numeric, up to 3 digits	Heart Rate ____/min	Numeric, max 3 digits	X
Numeric, up to 3 digits	Respiratory Rate ____/min	Numeric, max 3 digits	X

Control Type	Name and Order of fields	Validation Rule	Export
Label	General appearance and nutritional status		
No/Abnormal/Not Done checkboxes	Hearing and ears		X
No/Abnormal/Not Done checkboxes	Eyes		X
No/Abnormal/Not Done checkboxes	Nose, mouth and throat: (include dental)		X
No/Abnormal/Not Done checkboxes	Heart (S1, S2, murmur, rub)		X
No/Abnormal/Not Done checkboxes	Breast		X
No/Abnormal/Not Done checkboxes	Lungs		X
No/Abnormal/Not Done checkboxes	Abdomen (including liver and spleen)		X
No/Abnormal/Not Done checkboxes	Genitilia (including circumcising, infection(s))		X
No/Abnormal/Not Done checkboxes	Inguinal region(including adenopathy)		X
No/Abnormal/Not Done checkboxes	Extremities (including pulses, edema)		X
No/Abnormal/Not Done checkboxes	Musculoskeletal system (including gait)		X
No/Abnormal/Not Done checkboxes	Skin (including hypopigmentation, anesthesia, findings consistent with self-inflicted injury or injections)		X
No/Abnormal/Not Done checkboxes	Lymph Nodes		X
No/Abnormal/Not Done checkboxes	Nervous system (including nerve enlargement)		X
No/Abnormal/Not Done checkboxes	Mental status (including mood, intelligence, perception, thought processes, and behavior during examination)		X
Label	**Additional Testing Needed Prior to Approving Medical Clearance**		
Yes/No	Physical examination or laboratory results contradict medical history		X
Yes/No	Referral prior to departure		X
Text	If yes, result: XXXXXXXXXX **Allow up to 500 characters**		X
Yes/No	Referral prior to departure		X
Text	If yes, result: XXXXXXXXXX **Allow up to 500 characters**		
Label	**Follow-up Needed After Arrival**		
Checkbox	No		X
Checkbox	Yes, within 1 week		X

Control Type	Name and Order of fields	Validation Rule	Export
Checkbox	Yes, within 1 month		X
Checkbox	within 6 months		X
text	For continuing medications, list type, dose and frequency: XXXXXXXXXXXXXXXXXXXX		X
text	For continuing other medications, specified: XXXXXXXXXXXXXXXXXXXX		X
Label	**Remarks (describe any Abnormal history, Abnormal findings, and resulting interventions)**		
Text	Allow up to 2000 characters to be displayed		X

Page 1 3/14/2007 Chest X-Ray Tab

Control Type	Name and Order of fields	Validation Rule	Export
Label	**Chest X-Ray Needed**		
Boolean	History of tuberculosis (TB) disease		X
Boolean	Contact with TB patient		X
Boolean	TB signs or symptoms		X
Boolean	Adult (with or without any of the other)		X
Label	**Chest X-Ray Findings**		
Date	Date Chest X-Ray taken (mm-dd-yyyy)	Cannot be in the future	X
Radio Button	Normal findings	1. Both **Normal Findings** and **Abnormal Findings** cannot be selected at the same time. 2. Either **Normal Findings** or **Abormal Finding** must be selected. 3. If **Normal Findings** is selected, then all **Chest X-Ray Findings fields** should be disabled.	X
Radio Button	Abnormal findings	1. Both **Normal Findings** and **Abnormal Findings** cannot be selected at the same time. 2. Either **Normal Findings** or **Abormal Finding** must be selected. 3. If **Abnormal Findings** is selected then, "**Can suggest active TB**" or "**Can suggest Inactive TB**" or "**Other X-Ray findings**" should be selected.	X
Boolean	Can suggest ACTIVE TB (need smears)	If selected then "**Yes, applicant has"** is required. If selected, then "**Can suggest Inactive TB**" cannot be selected.	X
Boolean	Inflatration or consolidation	If selected then "**Can suggest active TB**" must be checked.	X
Boolean	Any cavitary lesion	If selected then "**Can suggest active TB**" must be checked.	X
Boolean	Nodule with poorly defined margins (such as tuberculoma)	If selected then "**Can suggest active TB**" must be checked.	X
Boolean	Pleural effusion	If selected then "**Can suggest active TB**" must be checked.	X
Boolean	Hilar/Mediastinal adenopathy	If selected then "**Can suggest active TB**" must be checked.	X
Boolean	Linear, interstitial markings (children only)	If selected then "**Can suggest active TB**" must be checked.	X
Boolean	Other (such as miliary findings)	If selected then "**Can suggest active TB**" must be checked.	X
Boolean	Can suggest INACTIVE TB (need smears if symptomatic)	If selected, then "**Can suggest active TB**" cannot be selected.	X
Boolean	Discrete fibrotic scar or linear opacity	If selected then "**Can suggest Inactive TB**" must be checked.	X
Boolean	Discrete nodule(s) without clarification	If selected then "**Can suggest Inactive TB**" must be checked.	X
Boolean	Discrete fibrotic scar with volume loss or retraction	If selected then "**Can suggest Inactive TB**" must be checked.	X
Boolean	Discrete nodule(s) with volume loss or retraction	If selected then "**Can suggest Inactive TB**" must be checked.	X

Control Type	Name and Order of fields	Validation Rule	Export
Boolean	Other (such as bronchiectasis)	If selected then "**Can suggest Inactive TB**" must be checked.	X
Boolean	OTHER X-Ray findings		X
Boolean	Follow-up needed	If selected then "**Other X-Ray Findings**" must be checked.	X
Boolean	Musculoskeletal	If selected then "**Follow-up Needed**" should be checked.	X
Boolean	Cardiac	If selected then "**Follow-up Needed**" should be checked	X
Boolean	Pulmonary	If selected then "**Follow-up Needed**" should be checked	X
Boolean	Other	If selected then "**Follow-up Needed**" should be checked	X
Boolean	No follow-up needed for Pleural thickening, diaphragmatic tenting, Blunting costophrenic angle, solitary calcified nodule or granuloma or minor musculoskeletal or cardiac finding		X
Text	Remarks		X
Label	**Sputum smears**		
Boolean	1. No, applicant has no signs or symptoms of TB and:	1. If selected, then fields 7 through 10 below are disabled. 2. If selected, then at least of fields 2-5 must be selected.	X
	2. X-ray suggests INACTIVE TB, this is a Class B2/TB	If selected, then #1 above must be checked.	X
	3. OTHER X-ray findings suggest follow-up needed after arrival, this is B Other	If selected, then #1 above must be checked.	X
	4. OTHER X-ray findings suggest no follow-up needed, this is No Class	If selected, then #1 above must be checked.	X
	5. X-ray Normal, this is No Class	1. If selected, then #1 above must be checked. 2. If selected, then fields #2-4 cannot be selected.	X
Boolean	6. Yes, applicant has (mark all that apply)	1. If selected, then at least one of fields #7 and #9 must be selected. 2. If selected, then both smear results dates and results for fields #7 - 10 are required.	X
Positive or Negative	7. Signs or symptom of TB present and smear results are:		X
Date	8. Dates obtained (mm-dd-yyyy)	Cannot be in the future. Dates have to be sequential.	X
Positive or Negative	9. X-ray suggests ACTIVE TB and smear results are		X
Date	10. Dates obtained (mm-dd-yyyy)	Cannot be in the future. Cannot be BEFORE previous date (should be sequential).	X
Label	11. Sputum smear results and X-ray findings: At least one smear result POSITIVE and		

Control Type	Name and Order of fields	Validation Rule	Export
Boolean	12. Any chest X-ray finding, this is Class A/TB (Normal or Abnormal findings)	Enabled only if at least one sputum result is positive.Disabled if all three smears are negative.	X
Boolean	13. Three smear results NEGATIVE and X-ray Normal with Signs of symptoms resolved, this is No Class	Enabled only if all three sputum smears are negative. Disabled if one or more smears is positive.	X
Boolean	14. Signs of symptoms suggest follow-up needed after arrival, this is B Other	Enabled only if all three sputum smears are negative. Disabled if one or more smears is positive.	X
Boolean	15. X-ray suggests ACTIVE or INACTIVE TB, this is Class B1/TB	Enabled only if all three sputum smears are negative. Disabled if one or more smears is positive.	**X**
Boolean	16. OTHER X-ray findings suggest follow-up needed after arrival, this is Class B Other	Enabled only if all three sputum smears are negative. Disabled if one or more smears is positive.	X
Boolean	No Class	1. If "**No Class**" is selected, then **Class A, B1, B2 and B Other** cannot be selected. 2. If "**Normal Findings**" is selected, "**No Class**" should be selected.	X
Boolean	Class A/TB	1. If "**Can suggest ACTIVE TB (need smears)" is selected then either "Class A**" or "**Class B1**" must be selected. 2. If there are one or more positive sputum smears then "**Class A"** must be selected. 3. If "**Class A**" is selected, then **Class B1 or B2** cannot be selected.	X
Boolean	Class B1/TB	1. If "**Can suggest ACTIVE TB (need smears)" is selected then either "Class A**" or "**Class B1**" must be selected. 2. If "**Class B1**" is selected then "**Class A**" or "**Class B2**" cannot be selected.	X
Boolean	Class B2/TB	1. If "**Can suggest INACTIVE TB (need smears if symptomatic)**"is selected, then "**Class B**2" should be selected. 2. If **Class B2** is seleced then, **Class A or B1** cannot be selected.	X
Boolean	Class B Other, follow-up needed	If "**OTHER X-ray findings suggest follow-up needed aftrer arrival, this is Class B Other**" then "**Class B Othe**r" should be selected	X
Yes/No	Follow-up Needed after arrival	If "**Class A, B1 or B2**" selected, then this must be yes. Disabled if "**No Class**" selected	X
Label	If yes, for	Disabled if "**No Class**" selected	

Page 4 3/14/2007 Chest X-Ray Tab

Control Type	Name and Order of fields	Validation Rule	Export
Boolean, should not be radio button	Not TB condition	Disabled if "**No Class**" selected	X
Boolean, should not be radio button	TB condition	Disabled if "**No Class**" selected	X
Text	Remarks		X

Alien (Alien#, Name, Address, Phone):

Sex: [ ] M [ ] F Date of Birth (Mo./Day/Yr.):

[ ] CLASS B-1 - Tuberculosis, clinically active, not infectious

[ ] CLASS B-2 - Tuberculosis, not clinically active, not infectious

REPORT ON ALIEN WITH TUBERCULOSIS

LOCAL HEALTH OFFICER:

This person recently entered the United States and is referred to you because the X-ray shows findings consistent with tuberculosis, as indicated in the accompanying report of medical examination performed abroad. This person may not have received chemotherapy or chemoprophylaxis and is referred to you because you may wish to initiate preventative treatment. Your initial evaluation would be appreciated. Please check the appropriate boxes below and return this form to the State Health Officer.*

If the alien does not report by please check here [ ] and forward this form to the State Health Officer.* Retain for your records the accompanying report of examination performed abroad (OF-157).

** Military will send direct to the CDC.*

Your Initial Evaluation:

A. Direct Smear (in U.S.)
[ ] Positive
[ ] Negative
[ ] Not Done

B. X-ray (in U.S.)
[ ] Normal
[ ] Abnormal
[ ] Not Done

C. X-ray (abroad)
[ ] Normal
[ ] Abnormal
[ ] Not Done
[ ] Unavailable

D. Presumptive Diagnosis
[ ] Pulmonary TB - Active
[ ] Pulmonary TB - Not Active
[ ] Pulmonary TB - Activity Undetermined
[ ] Extraplumonary TB
[ ] Non-TB Abnormality
[ ] No Abnormality

E. Has patient received chemotherapy/prophylaxis in the past?
[ ] Yes [ ] No [ ] Unknown

F. Are you prescribing chemotherapy/prophylaxis?
[ ] Yes [ ] No

Signature of Physician:
Date of Evaluation:
Name of Health Department:

This form is not intended to substitute for normal procedures for reporting tuberculosis to the state Health Department.

NOTE TO STATE HEALTH OFFICER: Upon receiving this completed copy from the Local Health Officer, please forward to:

Division of Quarantine, Data Mgr (E03)
Centers for Disease Control and Prevention (CDC)
Atlanta, GA 30333

CDC 75.17 (Rev. 02/99)

CLASS B

LOCAL HEALTH DEPARTMENT COPY

Local Health Department Class A/B Notification Surveillance Protocol

Background

Immigrants applying for permanent residency, refugees, and asylees receive a medical examination before traveling to the U.S. Those with abnormal chest x-rays receive a sputum smear test and are then classified in the following categories:

Classification	Chest X-ray (Suggestive of)	Sputum Smear	Status
A (infectious TB)	Active pulmonary TB	AFB+	Not eligible for entry until non-communicable for travel purposes
B1 (active TB, not infectious)	Active pulmonary TB	AFB-	Eligible for entry
B2 (TB, not active)	Inactive pulmonary TB	Not required unless symptomatic	Eligible for entry

Generating Notifications

Upon U.S. arrival, class A/B1/B2 patients report to a quarantine station at one of the major U.S. international airports or at a border crossing. Inspectors of the Centers for Disease Control and Prevention, Division of Global Migration and Quarantine (CDC DGMQ) obtain their medical documents. The notification information is data entered at the quarantine stations and transmitted to CDC in Atlanta to a national registry.

For Class B1 and B2 (Class B) patients, the Class B-notification form, CDC 75.17, (Class B form) is generated at the quarantine stations and mailed to the local health department (LHD) of the sponsor's county for California locations. [Note: Los Angeles Health Department forwards forms for the cities of Pasadena and Long Beach to their respective health departments; Alameda Health Department forwards Berkeley's forms to the Berkeley Health Department.]

LHD should ensure follow-up evaluation of Class B patients. See the California TB Controllers Association (CTCA)/State of California Department of Health Services (CDHS) joint guidelines entitled "Guideline for the Follow-Up and Assessment of Persons with Class B1/B2 Tuberculosis" for official State follow-up and assessment recommendations available on-line at http://www.ctca.org/tocgl.htm.

LHD Class A/B Surveillance Responsibilities

If the patient has been located and evaluated, is determined to have died, or is lost to follow-up, the LHD should complete the Class B form and mail it to the CDHS Tuberculosis Control Branch (TBCB) at:

TB Class A/B Registry
c/o TB Control Branch
California Department of Health Services
850 Marina Bay Parkway
Building P, 2nd Floor
Richmond, CA 94804-6403

CDHS TBCB (9/04)

Medical records or CDC cover letters do not need to be sent to TBCB. Only the completed Class B form needs to be sent to TBCB. TBCB will enter the Class B form data into a state database and then mail the Class B form to CDC.

If the patient is not located by the LHD within 30 days of arrival, the LHD should check the appropriate box in the upper right area of the Class B form and return the Class B form to TBCB. *(See Section II.1 below.)*

For instructions on ***patients who move***, see Section II.3.

For instructions on ***how to report adverse events*** in patients with B-notifications, or discrepancies between overseas and U.S. health department examinations, see Section VII of this document.

Class A/B Form Completion Instructions

Data for the following variables are preprinted on the Class B form: Alien number, Name, Address, Phone, Sex, Date of Birth, Class (B-1 or B-2), date of arrival, and date 30 days from arrival date.

I. Form variables to be completed by LHD:

Please be sure to complete all of the following variables before submitting to TBCB.

A. Direct Smear (in U.S.) *(required field)*

Check the appropriate result (**Positive, Negative**) of the smear test done in the U.S. or check **Not Done**. If results are pending, do not return the B-notification until there is a positive or negative smear result.

B. X-ray (in U.S.) *(required field)*

Check the appropriate result (**Normal, Abnormal)** of the chest x-ray that was performed in the U.S. or check **Not Done**. If results are pending, do not return the B-notification until there is a normal or abnormal x-ray result.

C. X-ray (abroad) *(required field)*

Check the result (**Normal, Abnormal)** of a physician's reinterpretation in the U.S. of the x-ray taken abroad if the x-ray is available.
Check **Not Done** if the x-ray interpretation by a physician in the U.S. was not done.
Check **Unavailable** If the x-ray taken abroad is not available.

D. Presumptive Diagnosis *(required field)*

Pulmonary TB-Active
Pulmonary TB- Not Active
Pulmonary TB- Activity Undetermined
Extrapulmonary TB
Non-TB Abnormality (abnormality exists, but is not TB)
No Abnormality

E. Has patient received chemotherapy/prophylaxis in the past?

Check **Yes** if the patient has received chemotherapy and/or prophylaxis for a TB condition prior to the evaluation in the U.S.

Check **No** if the patient has not received chemotherapy and/or prophylaxis for a TB condition prior to the evaluation in the U.S.
Check **Unknown** if chemotherapy/prophylaxis history is unknown.

F. Are you prescribing chemotherapy/prophylaxis?

Check **Yes** if the evaluating physician is prescribing chemotherapy and/or prophylaxis for a TB condition.
Check **No** if the evaluating physician is not prescribing chemotherapy and/or prophylaxis for a TB condition.

Signature of Physician

The evaluating physician should sign their name on the form to verify the reported evaluation results.

Date of Evaluation

Report the date the presumptive diagnosis was made by the evaluating physician.

Name of Health Department

Enter the name of the health department responsible for the patient's evaluation.

"No Show" Box

Check the **"no show" box** if the patient is not located by the health department within 30 days of their U.S. arrival date. The "no show" box is on upper right area of the Class B form. "If the alien does not report by "preprinted date," please check here [X] and forward this form to the State Health Officer." If known, indicate on the form why the patient was not able to be located (e.g., "bad address" or "patient died prior to locating").

II. Reporting instructions when evaluation is not completed

1. **When the patient is not located within 30 days of arrival** the LHD should return the Class B form to TBCB with the **"no show" box** checked. No other documentation (e.g. CDC letter, medical records) needs to be sent to TBCB. If known, indicate on the form why the patient was not able to be located (e.g., "bad address", "patient died prior to locating").

2. **When the patient dies** before the evaluation is complete, the LHD should return the Class B form to TBCB with available evaluation results, and a note stating "Patient died prior to completing evaluation" on the form.

3. **Reporting instructions when a patient moves**
   The following instructions apply when a Class A/B patient moves out of the local jurisdiction before the evaluation is complete, or settles in a jurisdiction other than that stated on the Class B form.

   #### a. Moves within California

   The LHD should forward the following *directly to the destination LHD*:
   - Class B form - write the new address (street, city, state, zip code), phone number, and date moved on the Class B form.
   - All corresponding medical records
   - A completed National TB Controllers Association (NTCA) Interjurisdictional TB Notification form.

   Send to the interjurisdictional contact person in the CTCA Roster. The NTCA Interjurisdictional Notification form can be found on-line at the TBCB website http://www.dhs.ca.gov/ps/dcdc/TBCB/resources.htm#transfercare.

b. Moves to another State

The LHD should forward the following *to TBCB:*

- Class B form - write the new address (street, city, state, zip code), phone number, and date moved on the Class B form.
- All corresponding medical records
- A completed NTCA Interjurisdictional TB Notification form.

TBCB will fax and mail the paperwork to the destination state (interjurisdictional contact person in NTCA Roster).

c. Moves to another country

The LHD should return the Class B form *to TBCB*, with the "no show" box checked, or evaluation results, if any, noting "Patient moved to [country]" on the form. Please send only the Class B form to TBCB. Do not include the patient's medical records or any other documentation.

III. Private Provider Evaluations

When a provider outside the health department evaluates the Class B patient, the following steps outline reporting requirements:

1. The LHD forwards the original Class B form to the private provider.
2. The private provider completes the Class B form and returns the form to the LHD.
3. The LHD reviews the completed Class B form, and communicates and rectifies any discrepancies, missing fields, and/or errors with the provider.
4. If the Class B form is not returned to the LHD within 30 days of U.S. arrival, the LHD should contact the provider to determine the patient's evaluation status.
5. When quality control measures are completed, the LHD submits the completed Class B form to TBCB.

IV. Timeframe for submitting completed Class B forms

If the patient is not located by the LHD within 30 days of arrival date, check the "no show" box on the Class B form and return it to TBCB.

If the patient is located and evaluated, submit the Class B form when all fields are completed. Do not send Class B forms with "pending" responses.

V. Class A notifications

Submission of a completed CDC 75.18 for Class A patients is required by INS regulation 8CFR, Part 212.7. The health care provider of the Class A patient is required to submit a completed CDC 75.18 as part of the I-601 waiver form for TB.

Reporting procedures to TBCB for Class A notifications (CDC 75.18) are the same as Class B (CDC 75.17).

VI. When Medical Evaluation Forms are Not Available

If your jurisdiction is the original immigration destination of the patient, but you have not received the medical evaluation and/or 75.17 form(s), contact the TBCB Registry Assistant (510-540-2169), who will attempt to obtain the forms from the appropriate quarantine station. If your jurisdiction is

not the original immigration destination of the patient, contact the original destination, if known, to have the forms forwarded to you.

If you don't know who to contact at the original jurisdiction, or if they are not able to supply the forms, contact the TBCB Registry Assistant (510-540-2169) for further assistance. Use a facsimile CDC 75.17 form in the event that the original 75.17 is not obtainable. Write in the patient's Alien number, Name, Date of Birth and Address (with city, state and zip code), in addition to filling in the evaluation variables.

VII. Reporting Discrepancies Between Overseas and U.S. Examinations

The California Department of Health Services Tuberculosis Control Branch and the Centers for Disease Control and Prevention are interested in capturing and resolving problems with the A/B notification system. Use the "Report of Adverse Events" form to report adverse events to the TBCB following the protocol below. The TBCB should be notified as soon as possible following identification of an adverse event.

Examples of adverse events involving new arrivals with A/B notifications that should be reported to TBCB include:

- Presence of acid-fast bacilli on examination in the United States (U.S.)
- Identification of multi-drug resistant TB (MDR-TB) on evaluation of a newly arrived patient with class A/B notification
- Suboptimal treatment regimens prior to entering the U.S.
- Significant discrepancies between the U.S. health department and the overseas examination or treatment history

When reporting these events, please include the following information:

- Statement of Problem
- Patient's full name, Alien number, and date of birth
- Results of overseas medical examination, including relevant worksheets (*Medical Examination for Immigrant or Refugee Applicant, DS-2053*; *Chest X-ray and Classification Worksheet, DS-3024*)
- Date of U.S. entry
- Date and results of the U.S. examination
- Your name, title, phone number and e-mail address

Please be aware that these medical records may contain information about a patient's HIV status, as well as other confidential information. Therefore, when mailing reports of adverse events, please use the two-envelope procedure described below. The TBCB will forward the information to CDC's Division of Global Migration and Quarantine (DGMQ). DGMQ has committed to take steps to investigate and resolve these adverse events, and report results to TBCB, which we will then share with you.

VIII. Confidentiality of Class A/B Medical Records

Class A/B notifications contain personal and medical information, including HIV status. Therefore, local and state health department staff must adhere to strict guidelines for maintaining the security and confidentiality of all Class A/B medical records. To ensure patient confidentiality when mailing Class A/B medical records to the TB Control Branch or to another jurisdiction, we suggest you use a two envelope procedure, which includes placing the medical records in an envelope, sealing it with tape, marking it "confidential", and addressing it to the specific authorized individual named above.

The aforementioned envelope is placed inside another envelope with the appropriate address and name of the authorized person and sealed with tape. Please note that the outside envelope will not read "confidential".

A/B Tuberculosis Notification
Report of Sentinel Event

Please use this form to report any of the following sentinel events identified in an immigrant arriving with a Class A/B notification. Check all that apply:

- ❑ Presence of acid-fast bacilli on examination in the United States (U.S.) with culture confirmation of *M.tb.*
- ❑ Identification of multidrug-resistant TB (MDR-TB) on evaluation of a newly arrived patient with Class A/B notification
- ❑ Sub-optimal treatment regimen prior to entering the U.S.
- ❑ Significant discrepancies between the U.S. health department and the overseas examination or treatment history
- ❑ Patients who underwent overseas screening and did not receive a TB classification, but were diagnosed with TB disease within 6 months of arrival in the U.S.
- ❑ Other (*Please describe*):

  _____
  _____

Statement of Problem:

_____
_____
_____

Patient Information

Patient's Full Name: _____ Country of origin: _____

Alien Number: __ __-__ __ __-__ __ __ DOB: __ __/__ __/__ __ Date of U.S Entry: __ __/__ __/__ __

B classification: ☐ B1 ☐ B2 ☐ B other TB ☐ No B class

Type of arriver: ☐ Immigrant ☐ Refugee ☐ Other

Contact Information

Your Name: _____ Title: _____

Phone Number: (__ __ __) __ __ __ - __ __ __ __ Email: _____

Jurisdiction: _____ Date: __ __/__ __/__ __

Please attach results of the overseas and U.S. medical examinations, including any relevant worksheets. Check all items you are including:

Results of OVERSEAS medical examination:

- ☐ *Medical Examination for Immigrant or Refugee Applicant (DS-2053)*
- ☐ *Medical Examination and Physical Examination Worksheet (DS-3026)*
- ☐ *Chest X-ray and Classification Worksheet (DS-3024*)
- ☐ *CDC 75.17 or Pre-Departure TB Classification Worksheet*
- ☐ *Additional overseas radiology reports*
- ☐ *Additional overseas laboratory reports*
- ☐ *Overseas hospital records*

Results of U.S. medical examination:

- ☐ *Patient hospital records*
- ☐ *Patient clinical progress notes*
- ☐ *U.S. radiology reports*
- ☐ *U.S. laboratory results*
- ☐ *U.S. local refugee health evaluation record*

Please mail completed form and related documents to:	Phil Lowenthal, MPH TB Control Branch, CDHS 850 Marina Bay Pkwy. P-building, 2nd floor Richmond, CA 94804
Questions? Call (510) 620-3045	

Instructions for Reporting Sentinel Events in Class A/B Notifications

Tuberculosis Control Branch/California Department of Health Services
7/12/06 Ver 2

Reporting sentinel events

The California Department of Health Services Tuberculosis (TB) Control Branch (TBCB) and the Centers for Disease Control and Prevention (CDC) are interested in capturing and resolving problems with the A/B notification system. Please use the "Report of Sentinel Events" form to report sentinel events to the TBCB as soon as possible following identification of a sentinel event.

Please be aware that these medical records may contain information about a patient's HIV status, as well as other confidential information. Therefore, when mailing reports of sentinel events, please use the two-envelope procedure described below. The TBCB will forward the information to CDC's Division of Global Migration and Quarantine (DGMQ). DGMQ has committed to take steps to investigate and resolve these sentinel events, and report results to the TBCB, which we will then share with you.

Missing medical evaluation or CDC 75.17 forms

In addition to reports of sentinel events, there have been reports of missing medical evaluation and/or CDC 75.17 forms at the time of the patient's arrival. If your jurisdiction is the original immigration destination of the patient, but you have not received the medical evaluation and/or 75.17 form(s), contact Phil Lowenthal of the TBCB who will attempt to obtain the forms from the appropriate quarantine station. If your jurisdiction is not the original immigration destination of the patient, contact the original destination, if known, to have the forms forwarded to you. If the original jurisdiction is not able to supply the forms, contact Phil Lowenthal for further assistance.

Phil Lowenthal
Registry Epidemiologist
Tuberculosis Control Branch
California Department of Health Services
850 Marina Bay Pkwy., P-building, 2nd floor
Richmond, CA 94804
(510) 620-3045

In the event of an urgent question that will affect medical management of the patient please call Phil Lowenthal, who will facilitate rapid communication with TBCB medical staff and DGMQ.

Mailing confidential documents

Whenever documents containing confidential medical information are mailed, the following two-envelope procedure should be used:

- Place the patient's paperwork in an envelope, seal it with tape, and mark it "confidential"
- Address it to the authorized surveillance individual (above)
- Place the aforementioned envelope inside another envelope with the appropriate address and name of the authorized surveillance individual (above), and seal it with tape
- Please note that the outside envelope should not read "confidential"

CONFIDENTIAL Attachment 5

ATS Tuberculosis Classification Worksheet For Hmong Refugees

Due to the high number of tuberculosis (TB) cases identified among recent Hmong refugees, the California Department of Health Services TB Control Branch (TBCB) is requesting that you complete this "ATS Tuberculosis Classification Worksheet" for newly arrived Hmong refugees.

Who: This form should be completed for all refugees with B notifications who arrived in your jurisdiction beginning June 2004, except those with confirmed active TB. Information on refugees without B notifications is entered into another system. Contact Janice Westenhouse at (510) 620-3055 or jwestenh@dhs.ca.gov for requirements for weekly reporting of verified cases of TB (ATS TB Class 3) in newly arrived Hmong refugees.

When: Complete and submit this form at the time final ATS TB classification is assigned.

Moves: If patient moves prior to completion of TB evaluation, indicate below, and use the NTCA Interjurisdictional Notification form to notify the destination jurisdiction.

Where: Using confidential mailing protocols, mail completed form to: Janice Westenhouse, MPH
Tuberculosis Control Branch
P-building, 2nd floor
850 Marina Bay Pkwy.
Richmond, CA 94804

OR Fax to: (510) 620-3035

1. Patient Information

Last name:_____ First name: _____

Alien number:_____ Date of birth: _____

Date of arrival in US: _____

Is patient a contact to a known Hmong case? ☐Yes ☐ No ☐ Unknown

If yes, name of case (if known):_____ Alien # of case (if known): _____

Does patient have a A/B classification for TB? ☐Yes ☐ No ☐ Unknown

If yes, indicate A/B classification *(check all that apply)*:
☐A (with waiver) ☐B1 (treated) ☐B1 (untreated) ☐B2 ☐B Other, TB (TST+) ☐B Other, TB (Contact)

2. Final ATS TB Classification

Final ATS TB classification: ☐0 ☐1 ☐2 ☐4

Date final ATS classification assigned: _____

If evaluation was not completed in your jurisdiction, indicate reason:

☐Moved to:_____ Moved date: _____(include copy of IJ Notification) ATS class (0-5) at time of move: _____
(county or state)

☐Lost or never located ☐Refused evaluation ☐Other:_____

3. Jurisdiction Contact Information

Jurisdiction:_____ Form completion date: _____

Contact name:_____ Phone:_____ Email:_____

Questions: If you need assistance in completing this form, please contact your TBCB Program Liaison at 510-620-3000.

Hmong ATS Classification Worksheet 10-31-05.doc (ver 2 - funded)

Instructions for ATS Tuberculosis Classification Worksheet for Hmong Refugees

1. Patient Information

Last name
First name
Alien number: Indicate the unique, identifying 8 digit Alien number.
Date of Birth: mm/dd/yyyyy

Is patient a contact to a known Hmong case?
Check **"Yes"** if the patient is a contact to a confirmed, active case of TB in a recently arrived Hmong refugee.

If the patient is a contact, indicate the name and Alien number of the case, if known.

Does the patient have an A/B classification for TB?
Check **"Yes"** if the patient has any TB condition resulting in a B-classification, or if the patient arrives with an A waiver for TB.

If "Yes", indicate the A/B classification:
For Hmong refugees entering the US after February 2005, the following information can be found on the "Enhanced Overseas Tuberculosis Screening and Treatment for Refugees Pre-Departure TB Classification Coversheet", that will be included in the overseas medical packet. Yellow forms (75.17s) will not be generated for this group of refugees.

Check all that apply:
Check "**A (with waiver)**" if the patient was granted an A waiver for TB
Check "**B1 (treated)**" if the patient was classified as "B1 TB, pulmonary, treated"; "B1 TB, pulmonary, completed treatment"; or "B1 TB, extrapulmonary, treated".
Check "**B1 (untreated)**" if the patient was classified as "B1 TB, pulmonary, untreated"; "B1 TB, pulmonary, untreated"; or "B1 TB, extrapulmonary, untreated".
Check "**B2**" if the patient was classified as "B2 TB, inactive disease". This classification should not be seen in Hmong refugees arriving after June 2005.
Check "**B Other, TB (TST+)**" if the person was classified as "B Other TB" as a result of a TST $\geq$ 5mm.
Check "**B Other, TB (Contact)"** if the person was classified as "B Other TB" because the person was a contact to a known case of TB.

2. ATS TB Classification

Indicate the final ATS classification for the patient. Indicate the date the final ATS classification was assigned.

If evaluation was not completed in your jurisdiction, indicate the reason:
Check **"Moved"** if the patient moved prior to completing an evaluation for TB, and indicate the state or local jurisdiction to which the patient is relocating. Indicate the date (approximate, if necessary) of the patient's move. Include a copy of the NTCA Interjurisdictional Notification form, if available, so that we may contact the destination jurisdiction, if needed. Indicate ATS Classification (0-5) at the time patient moved.

Check **"Lost or never located"** if the patient was lost to follow-up before the TB evaluation was completed, or if you were never able to locate the patient in your jurisdiction.

Check **"Refused evaluation"** if the patient declined an evaluation for TB.

Check **"Other"** if the patient did not complete an evaluation for TB due to a reason other than those listed above. Indicate the reason in the space provided.

3. Jurisdiction Contact Information

Include contact information for the person completing the form, so that we may contact you if there are any questions about the information on the form.

CONFIDENTIAL Attachment 5

ATS Tuberculosis Classification Worksheet For Hmong Refugees

Due to the high number of tuberculosis (TB) cases identified among recent Hmong refugees, the California Department of Health Services TB Control Branch (TBCB) is requesting that you complete this "ATS Tuberculosis Classification Worksheet" for newly arrived Hmong refugees.

Who: This form should be completed for all Hmong refugees who arrived in your jurisdiction beginning June 2004. Contact Janice Westenhouse at (510) 620-3055 or jwestenh@dhs.ca.gov for requirements for weekly reporting of verified cases of TB (ATS TB Class 3) in newly arrived Hmong refugees.

When: Complete and submit this form at the time final ATS TB classification is assigned.

Moves: If patient moves prior to completion of TB evaluation, indicate below, and use the NTCA Interjurisdictional Notification form to notify the destination jurisdiction.

Where: Using confidential mailing protocols, mail completed form to: Janice Westenhouse, MPH
Tuberculosis Control Branch
P-building, 2nd floor
850 Marina Bay Pkwy.
Richmond, CA 94804

OR Fax to: (510) 620-3035

1. Patient Information

Last name:_____ First name: _____

Alien number:_____ Date of birth: _____

Date of arrival in US: _____

Is patient a contact to a known Hmong case? ☐Yes ☐ No ☐ Unknown

If yes, name of case (if known):_____ Alien # of case (if known): _____

Does patient have a A/B classification for TB? ☐Yes ☐ No ☐ Unknown

If yes, indicate A/B classification *(check all that apply)*:

☐A (with waiver) ☐B1 (treated) ☐B1 (untreated) ☐B2 ☐B Other, TB (TST+) ☐B Other, TB (Contact)

2. Final ATS TB Classification

Final ATS TB classification: ☐0 ☐1 ☐2 ☐4

Date final ATS classification assigned: _____

If evaluation was not completed in your jurisdiction, indicate reason:

☐Moved to:_____ Moved date: _____(include copy of IJ Notification) ATS class (0-5) at time of move: _____
(county or state)

☐Lost or never located ☐Refused evaluation ☐Other:_____

3. Jurisdiction Contact Information

Jurisdiction:_____ Form completion date: _____

Contact name:_____ Phone:_____ Email:_____

Questions: If you need assistance in completing this form, please contact your TBCB Program Liaison at 510-620-3000.

Instructions for ATS Tuberculosis Classification Worksheet for Hmong Refugees

1. Patient Information

Last name
First name
Alien number: Indicate the unique, identifying 8 digit Alien number.
Date of Birth: mm/dd/yyyyy

Is patient a contact to a known Hmong case?
Check **"Yes"** if the patient is a contact to a confirmed, active case of TB in a recently arrived Hmong refugee.

If the patient is a contact, indicate the name and Alien number of the case, if known.

Does the patient have an A/B classification for TB?
Check **"Yes"** if the patient has any TB condition resulting in a B-classification, or if the patient arrives with an A waiver for TB.

If "Yes", indicate the A/B classification:
For Hmong refugees entering the US after February 2005, the following information can be found on the "Enhanced Overseas Tuberculosis Screening and Treatment for Refugees Pre-Departure TB Classification Coversheet", that will be included in the overseas medical packet. Yellow forms (75.17s) will not be generated for this group of refugees.

Check all that apply:
Check "**A (with waiver)**" if the patient was granted an A waiver for TB
Check "**B1 (treated)**" if the patient was classified as "B1 TB, pulmonary, treated"; "B1 TB, pulmonary, completed treatment"; or "B1 TB, extrapulmonary, treated".
Check "**B1 (untreated)**" if the patient was classified as "B1 TB, pulmonary, no treatment"; "B1 TB, pulmonary, untreated"; or "B1 TB, extrapulmonary, untreated".
Check "**B2**" if the patient was classified as "B2 TB, inactive disease". This classification should not be seen in Hmong refugees arriving after June 2005.
Check "**B Other, TB (TST+)**" if the person was classified as "B Other TB" as a result of a TST $\geq$ 5mm.
Check "**B Other, TB (Contact)"** if the person was classified as "B Other TB" because the person was a contact to a known case of TB.

2. ATS TB Classification

Indicate the final ATS classification for the patient. Indicate the date the final ATS classification was assigned.

If evaluation was not completed in your jurisdiction, indicate the reason:
Check **"Moved"** if the patient moved prior to completing an evaluation for TB, and indicate the state or local jurisdiction to which the patient is relocating. Indicate the date (approximate, if necessary) of the patient's move. Include a copy of the NTCA Interjurisdictional Notification form, if available, so that we may contact the destination jurisdiction, if needed. Indicate ATS Classification (0-5) at the time patient moved.

Check **"Lost or never located"** if the patient was lost to follow-up before the TB evaluation was completed, or if you were never able to locate the patient in your jurisdiction.

Check **"Refused evaluation"** if the patient declined an evaluation for TB.

Check **"Other"** if the patient did not complete an evaluation for TB due to a reason other than those listed above. Indicate the reason in the space provided.

3. Jurisdiction Contact Information

Include contact information for the person completing the form, so that we may contact you if there are any questions about the information on the form.

For State Use Only
___ ___ ___ ___--___ ___

FINAL OUTBREAK REPORT

This form should be used by the local health department at the conclusion of an outbreak investigation to report the final results of their investigation to the California Department of Health Services TB Control Branch. For the purposes of reporting, a TB outbreak is defined as the transmission of TB in any setting that results in 3 or more related cases.

1. a. **Total number of outbreak cases identified:**
Adults:_____ Children (<18 y.o.):_____

b. **Total number of MDR-TB* cases:**
Adults:_____ Children (<18 y.o.):_____

c, **Setting: (check all that apply)**
❑ Community ❑ Daycare ❑ Dialysis center ❑ Drug treatment center ❑ Homeless shelter
❑ Hospital ❑ Jail ❑ Nursing home ❑ Prison ❑ School/college
❑ Worksite (specify)_____ ❑ Household ❑ Other (specify)_____

d. **Population: (check all that apply)**
❑ Children (<5 y.o.) ❑ Elderly (> 65 y.o.) ❑ Homeless
❑ IV drug users ❑ Migrant workers ❑ Immunocompromised
❑ Other (specify)_____

Outbreak location and timeframe:
a. State_____ ❑ Check if multi-state
b. County_____ ❑ Check if multi-county

c. Outbreak timeframe: Date that first outbreak case was diagnosed _____ /_____/_____
Date that last outbreak case was diagnosed _____ /_____/_____

3. Outbreak cases related by:
❑ Epidemiologic link ❑ Isolates with matching genotypes$^{\Psi}$ ❑ Both

4. Total number of:
Contacts identified: _____
Contacts evaluated with tuberculin skin testing (TST)_____
Contacts diagnosed as converters^{+-}_____
Contacts diagnosed with latent TB infection_____

5. Please list RVCT case numbers associated with this outbreak:_____,
_____, _____, _____,
_____, _____, _____,
_____, _____, _____,
_____, _____, _____,

6. Agency reporting this outbreak:_____
Contact Person:_____ Address:_____
Phone:_____ Fax:_____
E-mail:_____ Date of completion of this form: ___/___/___

*MDR-TB is defined as an isolate that is resistant to both isoniazid and rifampin
$^{+}$Person with a documented negative skin test in the previous two years who has increase $\geq$ 10 mm upon TST
$^{\Psi}$Identical band patterns on spoligotyping or restriction fragment length polymorphsim (RFLP) analysis

Comments:_____

Mail or fax to: TB Outbreak Response Officer, Tuberculosis Control Branch, California Department of Health Services, 850 Marina Bay Parkway, Building. P, 2nd Floor, Richmond, CA 94801-6403 Phone (510) 620-3000 FAX (510) 620-3034

1

Tuberculosis Outbreak Reporting Instructions

Step 1: Initial Notification of Suspected Outbreak

Local health departments should ***call**** the Tuberculosis Control Branch of the California Department of Health Services to report any suspected (or confirmed) outbreaks of tuberculosis within one week of recognition.

I. An outbreak is defined as "the occurrence of cases of a disease (illness) above the expected or baseline level, usually over a given period of time, in a geographic area or facility, or in a specific population group." (CCR, Title 17, Sections 2500)

II. The following are examples of situations to report:

a. An unexpected increase (significantly above baseline) of newly identified confirmed or suspected cases in any setting.

b. Multiple confirmed or suspected cases from a congregate (e.g., school, jail, etc…) or high-risk setting (e.g., HIV positive individuals) occurring within a relatively short period of time.

c. Multiple confirmed or suspected cases from a community setting (outside a household) occurring within a relatively short period of time that may be related.

d. Two or more cases of MDR (multidrug resistant) TB that may be related.

e. If state assistance is needed for the investigation and containment of a suspected outbreak within or across local health jurisdiction boundaries.

For initial *phone* notification of suspected or confirmed outbreaks, please call:

TB Outbreak Duty Officer
Tuberculosis Control Branch, California Department of Health Services
Phone (510) 620-3000 (8AM to 5PM)

Step 2: Final Reporting of Confirmed Outbreak

At the conclusion of an outbreak investigation, local health departments should ***mail or fax*** the "Final Outbreak Report" (on the reverse page) to report any outbreak involving 3 or more related cases. Please send this form after completing your contact/outbreak investigation.

Please send the final outbreak report form to:

TB Outbreak Duty Officer
Tuberculosis Control Branch, California Department of Health Services,
850 Marina Bay Parkway, Richmond CA 94804 Fax (510) 620-3034

*California law mandates the immediate reporting of outbreaks by telephone to local county health departments, and subsequent reporting from local to state health departments within one week (CCR, Title 17, Sections 2500 and 2502).

For State Use Only
___ ___ ___ ___--___ ___

FINAL OUTBREAK REPORT

This form should be used by the local health department at the conclusion of an outbreak investigation to report the final results of their investigation to the California Department of Health Services TB Control Branch. For the purposes of reporting, a TB outbreak is defined as the transmission of TB in any setting that results in 3 or more related cases.

1. a. **Total number of outbreak cases identified:**
Adults:_____ Children (<18 y.o.):_____

b. **Total number of MDR-TB* cases:**
Adults:_____ Children (<18 y.o.):_____

c, **Setting: (check all that apply)**
❑ Community ❑ Daycare ❑ Dialysis center ❑ Drug treatment center ❑ Homeless shelter
❑ Hospital ❑ Jail ❑ Nursing home ❑ Prison ❑ School/college
❑ Worksite (specify)_____ ❑ Household ❑ Other (specify)_____

d. **Population: (check all that apply)**
❑ Children (<5 y.o.) ❑ Elderly (> 65 y.o.) ❑ Homeless
❑ IV drug users ❑ Migrant workers ❑ Immunocompromised
❑ Other (specify)_____

Outbreak location and timeframe:
a. State_____ ❑ Check if multi-state, specify_____
b. County_____ ❑ Check if multi-county, specify_____

c. Outbreak timeframe: Date that first outbreak case was diagnosed _____ /_____/_____
Date that last outbreak case was diagnosed _____ /_____/_____

3. Outbreak cases related by:
❑ Epidemiologic link ❑ Isolates with matching genotypes$^{\Psi}$ ❑ Both

4. Total number of:
Contacts identified: _____
Contacts evaluated with tuberculin skin testing (TST)_____
Contacts diagnosed as converters^{+}_____
Contacts diagnosed with latent TB infection_____

5. Please list RVCT case numbers associated with this outbreak:_____,
_____, _____, _____,
_____, _____, _____,
_____, _____, _____,
_____, _____, _____,

6. Agency reporting this outbreak:_____
Contact Person:_____ Address:_____
Phone:_____ Fax:_____
E-mail:_____ Date of completion of this form: ___/___/___

*MDR-TB is defined as an isolate that is resistant to both isoniazid and rifampin
$^{+}$Person with a documented negative skin test in the previous two years who has increase ≥ 10 mm upon TST
$^{\Psi}$Identical band patterns on spoligotyping or restriction fragment length polymorphsim (RFLP) analysis
Comments:_____

Mail or fax to: TB Outbreak Duty Officer, Tuberculosis Control Branch,
California Department of Health Services,
850 Marina Bay Parkway, Richmond CA 94804
Phone (510) 620-3000 Fax (510) 620-3034

2

California Department of Health Services
TB Control Branch

TB Outbreak Response Team

Mission Statement: For outbreaks and extended contact investigations, the goal of the TBCB is to provide high-quality, consistent, and rapid assistance to local health departments to halt ongoing tuberculosis transmission.

Background

As the incidence of tuberculosis (TB) declines, outbreaks of TB become more apparent against the background of fewer and fewer cases. TB outbreaks represent ongoing, uncontrolled disease transmission and often occur among vulnerable populations and within high-risk settings. Jails, prisons, shelters, hospitals, schools, and nursing homes are all sites where outbreaks of TB have occurred in California. In addition, other settings such as renal dialysis centers, churches, and worksites have been sites of extended contact investigations when large numbers of people have been exposed to an active TB case and there is potential for an outbreak. Since each TB outbreak represents a setback for TB elimination, the prevention, identification of and response to outbreaks is becoming an ever more important component of TB control.

Outbreak related efforts offer opportunities for improving tuberculosis control in California. Outbreak investigations may identify at-risk populations who should be targeted for screening and treatment of LTBI; high-risk settings where more surveillance, education, and infection control measures are needed; delays in diagnosis of TB by providers that require further educational interventions; or policy issues that should be addressed.

Purpose of the Outbreak Response Team

Some outbreaks can present challenges to TB control programs. Local health department staff must quickly mobilize a tremendous number of diverse resources to contain an outbreak. They must coordinate communications between many different organizations and collect and manage large amounts of data. Media coverage and political issues may complicate the investigation and add to the workload. As a result, the TBCB has created the Outbreak Response Team (ORT) to provide assistance to local health departments when they do not have the resources to respond to an outbreak or extended contact investigation while still maintaining other necessary TB program functions.

Frequently asked questions:

1. Who is on the ORT and what services do they provide?

The Outbreak Response Team includes a nurse, physician, Public Health Advisor, epidemiologist and a Consulting Communicable Disease Representative. Technical assistance can be provided onsite or by telephone and can include any or all of the following services:

- Investigation planning/prioritization
- Medical consultation
- Case management consultation
- Field staff to conduct interviews, locate contacts, and provide access to hard to reach populations
- Data management and analysis
- Staff training
- Lab services
- Referrals for engineering and infection control consultation
- Liaison to community providers

The ORT can also provide samples of tools and forms used in other investigations, which can be modified to meet individual program needs.

2. What is a TB outbreak?

In general, an outbreak is defined as the occurrence of cases above the expected level, usually over a given period of time in a geographic area, facility, or within a specific population group.

When assessing whether a cluster of TB cases represents an outbreak, indicators to look for include:

- Epidemiological links between cases
- Similar unique characteristics among cases
- Matching drug resistance patterns of isolates
- Matching DNA fingerprint patterns of isolates

Outbreaks of special concern are MDR-TB outbreaks, outbreaks among immuno-compromised populations, children, or other vulnerable groups.

3. How do I report an outbreak?

California law requires local health departments to report TB outbreaks to the state health department within one week of recognition. When an outbreak is initially identified, it should be reported to the TBCB by phone using the number provided below. We also encourage health departments to notify the TBCB of any extended contact investigation in high-risk populations or congregate settings. Instructions for the initial notification of suspected outbreaks, and the follow-up reporting of confirmed outbreaks, can be found in the "Tuberculosis Outbreak Reporting Instructions" accompanying this Fact Sheet.

4. Whom do I call for assistance?

To request assistance for an outbreak or extended CI, the TB Controller or Program Manager should contact the TB Outbreak Duty Officer using the number listed below. Requests can be made at any time during an investigation, although in general it is optimal when the ORT is involved from the beginning of a response.

5. What will happen next?

Once a request is received, the ORT will arrange either a teleconference or meeting with the LHD to discuss: clinical features of the case(s); numbers of contacts; characteristics of the case(s) and exposed population; exposure setting; potential political or media involvement; and needs of the LHD. Based on this information, together the LHD and ORT will determine the type of help to be provided. Details of assistance activities will then be defined in an informal written work plan, which can be revised as needs change throughout the investigation.

Once assistance ends, a debriefing will be held between the ORT and LHD to summarize preliminary results and to discuss what worked well and what could have been improved in the investigation. Additionally, the LHD will be given the opportunity to evaluate ORT's performance and provide suggestions for improvement in future technical assistance activities. A final report detailing the investigation results and future recommendations will be prepared by the ORT and submitted to the LHD at the conclusion of an investigation.

6. Who will be in charge of the investigation?

The LHD is the lead agency in responding to outbreaks and extended contact investigations within its jurisdiction. The ORT will assist the LHD in an investigation, and each agency is responsible for overseeing its own staff's activities. Before ORT assistance begins, roles, responsibilities, and the general plan and priorities for the investigation will be defined.

For further information or to request assistance, contact:
TB Outbreak Duty Officer
510-620-3000
M-F 8am-5pm

Aggregate Reports for Tuberculosis Program Evaluation:
Follow-up and Treatment for Contacts to Tuberculosis Cases
Preliminary Report

Reporting Area: _____ Submitted By: _____

Cohort: _____ Telephone: _____

E-mail: _____

Total TB Cases Reported: _____ Date Submitted: _____

Part I. Cases and Contacts

	Types of Cases for Investigation:		
	Sputum smear (+)	**Sputum smear (–), cult. (+)**	**Other Pulmonary**
Cases for Investigation	(a1)	(a2)	(a)
Cases with No Contacts	(b1)	(b2)	(b)
Number of Contacts	(c1)	(c2)	(c)
Evaluated	(d1)	(d2)	(d)
TB Disease	(e1)	(e2)	(e)
Latent TB Infection	(f1)	(f2)	(f)
Started Treatment	(g1)	(g2)	(g)
Completed Treatment			
Reasons Treatment Not Completed:			
Death			
Contact Moved (follow-up unknown)			
Active TB Developed			
Adverse Effect of Medicine			
Contact Chose to Stop			
Contact is Lost to Follow-up			
Provider Decision			
Still on Treatment			

Part II. Evaluation Indices

No-Contacts Rate	(b1 ÷ a1), %	(b2 ÷ a2), %	(b ÷ a), %
Contacts Per Case	(c1 ÷ a1)	(c2 ÷ a2)	(c ÷ a)
Evaluation Rate	(d1 ÷ c1), %	(d2 ÷ c2), %	(d ÷ c), %
Disease Rate	(e1 ÷ d1), %	(e2 ÷ d2), %	(e ÷ d), %
Latent Infection Rate	(f1 ÷ d1), %	(f2 ÷ d2), %	(f ÷ d), %
Treatment Rate	(g1 ÷ f1), %	(g2 ÷ f2), %	(g ÷ f), %
Completion Rate	(h1 ÷ g1), %	(h2 ÷ g2), %	(h ÷ g), %

Aggregate Reports for Tuberculosis Program Evaluation:
Follow-up and Treatment for Contacts to Tuberculosis Cases
Final Report

Reporting Area: _____ Submitted By: _____

Cohort: _____ Telephone: _____

E-mail: _____

Total TB Cases Reported: _____ Date Submitted: _____

Part I. Cases and Contacts

	Types of Cases for Investigation:		
	Sputum smear (+)	**Sputum smear (–), cult. (+)**	**Other Pulmonary**
Cases for Investigation	(a1)	(a2)	(a)
Cases with No Contacts	(b1)	(b2)	(b)
Number of Contacts	(c1)	(c2)	(c)
Evaluated	(d1)	(d2)	(d)
TB Disease	(e1)	(e2)	(e)
Latent TB Infection	(f1)	(f2)	(f)
Started Treatment	(g1)	(g2)	(g)
Completed Treatment	(h1)	(h2)	(h)

Reasons Treatment Not Completed:

Death			
Contact Moved (follow-up unknown)			
Active TB Developed			
Adverse Effect of Medicine			
Contact Chose to Stop			
Contact is Lost to Follow-up			
Provider Decision			
Still on Treatment			

Part II. Evaluation Indices

No-Contacts Rate	(b1 ÷ a1), %	(b2 ÷ a2), %	(b ÷ a), %
Contacts Per Case	(c1 ÷ a1)	(c2 ÷ a2)	(c ÷ a)
Evaluation Rate	(d1 ÷ c1), %	(d2 ÷ c2), %	(d ÷ c), %
Disease Rate	(e1 ÷ d1), %	(e2 ÷ d2), %	(e ÷ d), %
Latent Infection Rate	(f1 ÷ d1), %	(f2 ÷ d2), %	(f ÷ d), %
Treatment Rate	(g1 ÷ f1), %	(g2 ÷ f2), %	(g ÷ f), %
Completion Rate	(h1 ÷ g1), %	(h2 ÷ g2), %	(h ÷ g), %

Basic Instructions for the
California Aggregate Reports for Tuberculosis Program Evaluation:
Follow-up and Treatment for Contacts to Tuberculosis Cases, Preliminary and Final Reports

Note: The instructions for this report are not a substitute for guidelines about tuberculosis (TB) diagnosis, treatment, or control. Any contradictions between the implied content of these instructions and the health department's policies and practices should be discussed, according to the context, with a consultant from the local or state TB program or the Centers for Disease Control and Prevention (CDC) Division of Tuberculosis Elimination (DTBE).

This report is an annual summary of the core activities of eliciting and evaluating contacts to TB cases and treating the contacts who have latent TB infection. The health department also may include results that are provided by partner or contract health care entities, if the health department has assurance that the data are satisfactory. This generally means that the other entities have cooperated with the health department in confirming the results from contact evaluations and in managing the treatment of contacts who have latent TB infection.

Aggregate Reports for Tuberculosis Program Evaluation (ARPE) *(California instructions)*-

There are two forms used in California to report contact investigation aggregate data for TB program evaluation. All local health departments are required to complete and submit the **California ARPE: Follow-up and Treatment for Contacts to TB Cases (CA ARPE-CI) Preliminary and Final Report** forms. Jurisdictions with no cases counted during the cohort period must still submit the forms reporting 0 for 'Total TB Cases Reported' on both forms.

Only local health departments with CDC-funded targeted testing projects in California are required to complete the CDC **ARPE: Targeted Testing and Treatment for Latent Tuberculosis Infection** (ARPE-TT) and submit the preliminary and final reports to the California Department of Health Services (DHS) TB Control Branch (TBCB) at this time. Other local health department may find this form useful to track contact-related data, however, do not submit this report to TBCB. In two special circumstances, contact-related data are reported on the ARPE-TT:

1. When a health department is compelled to evaluate, as "contacts," persons who have probably not actually been exposed to an index case of TB under investigation, the results of this excess testing may be reported on the ARPE-TT rather than the CA ARPE-CI. These data will, generally, be entered on the ARPE-TT into **Part I.** under **Admin**. If, however, some individuals have TB risk factors, these should be grouped under **Targeted Testing** and **Individual**.
2. When contacts with known prior history of latent infection or TB disease (now inactive) are treated for latent TB infection, this treatment can be recorded on the ARPE-TT in **Part III. Referral Counts**. [The **CA ARPE-CI Preliminary and Final** reports do not have categories to record the diagnosis and treatment of these contacts. These contacts should, however, still be included in the counts for the **Number of Contacts** and **Evaluated** (see below) on the CA ARPE-CI.]

CA ARPE-CI Preliminary and Final Reports *(California instructions)*. DHS TBCB modified the CDC ARPE-CI to create two DHS forms. DHS 8635 A is the **California ARPE-CI Preliminary Report** form (**CA ARPE-CI Prelim**). DHS 8635 B is the **California ARPE-CI Final Report** form (**CA ARPE-CI Final**). Please use these forms when reporting contact data to the TBCB.

The **CA ARPE-CI Prelim** (DHS 8635 A) includes Part 1 through "Started Treatment" (row g), plus the corresponding Part II. Evaluation Indices (all indices excluding Completion Rate). The portions of the form which should not be included in the Prelim report are greyed out on the CA ARPE-CI Prelim form.

The **CA ARPE-CI Final** (DHS 8635 B) comprises the complete ARPE form and includes the previously submitted CA ARPE-CI Prelim data for the given cohort.

Reporting Schedule *(California instructions)*. Submission dates for the CA ARPE-CI Prelim reports are scheduled for approximately three and a half months after the end of the cohort. The CA ARPE-CI Final reports are due to TBCB one year after the CA ARPE-CI Prelim reports. CA ARPE-CI Prelim and Final report forms and instructions will be mailed to all local health departments two months prior to the submission deadline. Please refer to the 'Schedule for Reporting Contacts to TB Cases in California' for specific dates by which all local health departments in California should submit the CA ARPE-CI Prelim and Final reports.

CA ARPE Form Instructions

Cohort *(California instructions)*. ARPE data are accumulated into cohorts that each cover half the calendar year (i.e. January-June, July-December). Contacts are assigned to the cohort time period in which the index TB cases were counted and reported to the State using the count date (variable #6 "Month-Year Counted" on the Report of Verified Case of TB) for the case to which the contact is linked. A person included in more than one contact investigation in a cohort period should be counted for each event, but contacts exposed to multiple TB cases connected to a single contact investigation (i.e. index and secondary cases) should each be counted only once.

Total TB Cases Reported. This is the total surveillance TB case count for the cohort period including cases without associated contact investigations.

Part I. Cases and Contacts

Types of Cases for Investigation (Data Columns):
The TB cases, their contacts, and all the subsequent results are grouped into the following three categorical columns according to the type of TB case leading to the contact investigation.

Sputum smear (+). All of the following criteria must be met to count cases in this category:

1. inclusion in the overall surveillance count,
2. disease site in the respiratory system including the airways, and
3. positive AFB sputum smear result, whether or not any culture result is positive.

Cases should be counted in this category even if contacts could not be elicited for any reason (e.g., the patient left the area or died before an interview could be done).

Sputum smear (-) cult. (+). All of the following criteria must be met for counting cases under this category:

1. inclusion in the overall surveillance count,
2. disease site in the respiratory system including the airways,
3. negative AFB sputum smear results, and
4. sputum culture result positive for *Mycobacterium tuberculosis* complex.

Cases should be counted under this category even if contacts could not be elicited for any reason.

Other Pulmonary *(California instructions)*. This category includes contact investigations conducted for verified pulmonary/laryngeal TB cases not included in the other two case categories. Example: Clinically confirmed TB or TB confirmed by a bronchial wash, not sputum, sample. Cases should be counted under this category even if contacts could not be elicited for any reason. Please note that this box is shaded on the federal CDC ARPE-CI form but is not shaded on the California ARPE-CI forms.

Data Rows:

Cases for Investigation *(California instructions)*. TB cases for whom contact investigations are indicated are counted here whether or not an investigation was performed. The TB cases are grouped into the three above categorical columns according to the type of TB case leading to the contact investigation. Please note, source case investigations for pediatric cases are not reportable on the ARPE-CI.

Cases With No Contacts *(California instructions)*. Cases counted in "Cases for Investigation" are reported here if no contacts were elicited, regardless of the reason contacts were not elicited. Please note that the box for this count is shaded for the "Others" case category on the federal CDC ARPE-CI form but is not shaded on the California ARPE-CI forms.

Number of Contacts *(California instructions)*. All the following criteria must be met to count a person exposed to TB as a contact for this report:

1. The health department believes the person was exposed, warranting an evaluation for TB disease or latent infection. The following list of factors should be considered when determining whether evaluation is warranted for a contact:
   - Infectiousness of source case
   - Proximity of contacts
   - Duration of exposure
   - Host susceptibility of contact (e.g. immunosuppression, child, other high risk factors)
   - Environmental characteristics affecting transmission (e.g. ventilation, size of space)
   - Evidence of transmission.

2. The exposure was caused by a TB case counted by the reporting jurisdiction.

3. Enough information is available to verify a current location or phone number for the named contact, regardless of whether the person is in the jurisdiction of the health department. The follow-up of out-of-jurisdiction contacts usually requires the assistance of the health departments in those other jurisdictions.

Note: Persons should not be included in the contact count if, as judged by the health department, they do not need to be evaluated. This may occur, for example, when the concentric circle model is used. If evaluation of contacts with the greatest exposure (i.e., "close contacts") revealed no evidence of transmission, the health department may determine that other contacts, who are not high-risk, and had less exposure do not require evaluation. These contacts should not be included in the ARPE "Number of Contacts."

Note: Contacts associated with a TB case located in another jurisdiction are counted by the jurisdiction reporting the TB case, not the jurisdiction in which the contact is located.

Evaluated *(California instructions)*. This is the number of contacts for whom the indicated evaluation step listed below has been completed, as part of a contact investigation, to the point where a final determination can be made about three of the potential diagnostic outcomes: latent TB infection, TB disease (see below for reporting definitions of these outcomes), or neither.

Indications	Evaluation Step
ALL CONTACTS	Interview[1], **and** Symptom review
Contacts with no documented history of positive Tuberculin Skin Test (TST) or TB disease	TST #1 placed and read[2]
Contacts with TST #1 placed < 12 weeks from last exposure, and with a negative TST #1	TST #2 placed and read[2]
Contacts with documented history of positive TST	Chest radiograph[3]
Contacts with: • TB symptoms present, **or** • Positive TST #1 or positive TST #2, **or** • History of TB disease, **or** • HIV-infection, risk for HIV infection[5], or age < 4 years	Medical evaluation[4], **and** Chest radiograph[3]

[1] Interview includes query regarding: symptoms, history of latent TB infection or TB disease, documented previous TST results, previous treatment for latent TB infection or TB disease, risk factors for developing TB disease or, other conditions of

immunosuppression that are associated both with anergy or false TST positive results, and that are associated with high risk of progression from infection to disease (e.g. patients who are undergoing immunosuppressive therapy, patients who have leukemia or Hodgkin's disease).

[2] Skin tests with other antigens, for cutaneous anergy, should not be considered for classifying outcomes for this report.

[3] May not need to obtain a new chest radiograph if a chest radiograph was done within the preceding six months.

[4] Medical evaluation is an in-person evaluation by a physician or other appropriately licensed practitioner.

[5] Please see the California TB Controllers Association/California Department of Health Services *Joint Guidelines for TB Treatment and Control in California, Contact Investigation Guidelines.* (11/98) Appendix 3, page 22, for a list of factors associated with increased risk of HIV infection.

Note about contacts having prior TB disease or latent infection: CA ARPE-CI Prelim and Final contact reports only include those contact evaluation results determined through contact investigations. Contacts with a known history of TB disease or latent infection prior to a contact investigation should, however, be included in the **Number of Contacts.** And generally, these contacts can also be counted under **Evaluated** *if their evaluation is completed according to the 'Evaluated' table*. However, the diagnostic and treatment outcomes are **not** counted in the CA ARPE-CI Prelim or Final reports.

When contacts with a known history of TB disease or latent infection prior to contact investigation are treated, their treatment information should be counted **only** in the other aggregate report, ARPE-TT. For jurisdictions required to submit the ARPE-TT (see note below), these contacts would be included in the section **Part III. Referral Counts**. Thus, these contacts are counted on both reports. They are counted on CA ARPE-CI Prelim and Final reports as contacts and then on the ARPE-TT as referrals for treatment. ***(California instructions)***- Again, please note that, in California, only local health departments with Centers for Disease Control and Prevention (CDC)-funded targeted testing projects are required to complete the ARPE-TT at this time.

TB Disease. Contacts should be counted under this outcome if they have TB disease (i.e., active TB) diagnosed as part of the contact investigation. Cases must fit the CDC Report of a Verified Case of Tuberculosis (RVCT) definition and should be referred for morbidity surveillance according to the reporting requirements. Persons with active TB disease that developed after latent infection was diagnosed during the contact investigation should not be counted in this category. Persons with a history of TB who have been previously treated or have spontaneously healed, and persons with TB disease diagnosed coincidentally (i.e., not because of the contact investigation) should also not be counted in this category. (These instructions differ slightly from those for the ARPE-TT.)

Note about DNA fingerprinting (i.e., RFLP or "strain" typing): results of DNA fingerprinting of *Mycobacterium tuberculosis* isolates should be ignored when counting contacts under **TB Disease** even when fingerprinting results disprove a transmission link. The count for **TB Disease** should be tabulated for this report as though DNA fingerprinting were unavailable.

Latent TB Infection. This is the count of contacts with latent TB infection (not TB disease) diagnosed through current contact investigations. Both of the following criteria must be met:

1. new positive result of a current tuberculin skin test (as interpreted according to California diagnostic guidelines), and
2. exclusion of active TB disease through further tests or examinations.

Latent TB infections diagnosed coincidentally or prior to the contact investigation (prior positive TST) should be not be included in this count.

Note about "anergy": in determining whether to count a contact under **Latent TB Infection**, only results from a tuberculin test should be considered, not from skin tests with other antigens (i.e., "control" antigens or an "anergy panel"). If, however, a contact with a negative tuberculin skin test result is being treated with a full-course regimen for suspected latent TB infection, that contact should be counted under **Latent TB Infection**.

Started Treatment. A contact with latent TB infection is counted in this category after the first dose of a planned full treatment course for latent TB infection. The determination of whether the first dose has been taken is based on the best available information which is often the contact's statement. If a contact is lost to follow-up after treatment was prescribed, and information is unavailable about whether any medication was taken, then treatment can be considered started if the contact picked up the medicine from a clinic or pharmacy.

Note about "window-period treatment": contacts receiving treatment pending a second tuberculin skin test (i.e., window-period treatment) should not be counted under **Started Treatment** unless latent TB infection is diagnosed finally and counted for the report.

Completed Treatment. (**Note**: this category is based partly on an *arbitrary, operational* definition of completion. It might not be equivalent to an adequate course of therapy.) The following criteria are required for counting under this category:

1. the prescribing provider, believing that an adequate regimen has been received, discontinues treatment,
2. the contact has taken at least 80% of the prescribed doses in the selected regimen, and
3. the treatment is finished within a period of 150% of the selected duration of therapy.

Determination of whether the definition of "completed treatment" is met is made from the best available information, which is generally the provider's records and the contact's statements about adherence to treatment.

Reasons Treatment not Completed: this section catalogues some general reasons that the treatment for latent TB infection is not being completed.

Death. Contacts receiving treatment on schedule who had treatment interrupted by death before completing are counted under this category. (Note: Because of the seriousness of this outcome and the unreliability of anecdotal reports, a verification check of all deaths is helpful for accuracy in reporting.)

Contact Moved (follow-up unknown). Contacts who do not complete treatment because they have moved or migrated from the health department jurisdiction should be counted in this category when follow-up information is unavailable. If, however, the health department receives specific follow-up from another jurisdiction (e.g., **Completed Treatment** or **Patient is Lost to Follow-up**), then that outcome should be reported.

Active TB Developed. If a contact who is receiving treatment for latent TB infection develops active TB, that qualifies as a case under the standard surveillance definition (i.e., RVCT), then the outcome is counted in this category. If, however, the treatment regimen has already been stopped before active TB developed, because of completion or any other reason, then the outcome should not be reported as **Active TB Developed**.

Adverse Effect of Medicine. If contacts do not complete treatment because of an adverse effect (including drug-drug or drug-food interactions) of the anti-TB medication, they should be counted in this group provided that a health care provider documents the problem and determines that the medicine should be discontinued. If a contact stops taking the medicine because of an adverse effect but a provider has not recommended the discontinuation, then the reason for stopping treatment should be counted as **Contact Chose to Stop**.

Contact Chose to Stop. Contacts should be counted in this category if they decide to stop taking their medicine before they have finished their regimen and a health care provider has not determined that the medicine should be discontinued for a medical reason.

Contact is Lost to follow-up. Contacts whose treatment status at the anticipated end of the treatment regimen is incomplete or indeterminate because the health department cannot locate them to determine a more specific outcome should be counted in this category.

Provider Decision. Contacts whose treatment is discontinued because a health care provider determines that treatment for latent TB infection should be stopped due of concerns about the benefits, safety, or practicality of treatment (e.g., a contact has such erratic attendance at the clinic that the adequacy and the safety of the treatment cannot be monitored) should be counted in this category.

Still on Treatment. Contacts who are still on treatment at the time the Final report is due should be counted in this category.

Part II. Evaluation Indices.

This part of the contact follow-up report contains the summary statistics calculated from the aggregate data in **Part I** of the report. The formulae for each cell are shown in the paper-copy table.

(California instructions). Manual calculation and reporting of these indices is required when using the paper CA ARPE-CI Prelim and Final reports. These indices can help evaluate contact investigation activities in local health jurisdictions.

TB CONTACT ROSTER

INDEX CASE

CASE # ____________________
COUNT DATE ______/______ (mm/yy)
NAME: ____
DOB: _____/_____/_____

[ ] Sputum smear + [ ] Sputum smear –
[ ] TB culture + [ ] TB culture –
[ ] Cavity on CXR
[ ] TB suspected
Dx: ______________________________

[ ] Pan-Sensitive
Resistant to (check all that apply):
[ ] INH [ ] RIF
[ ] Other ______________________________
Infectious Period: ____/____/____ to ____/____/____

Case Manager: __________________________
Assigned: ____/____/____
Completed: ____/____/____

CONTACT NAME, ADDRESS, HOME PHONE / OTHER PHONE	Warrants Evaluation / Contact Type	SEX / RACE & ETHNICITY / DOB AGE	US-BORN	RELATION	PLACE	LAST EXPOSED	SYMPTOMS	PRIOR (+) TST	TST Read Result / RETEST NEEDED?	F/U TST Read Result	CXR Date / RESULT	Evaluation Completed	TB CLASS	RX REGIMEN	STARTED RX FOR LTBI? Date / IF NOT, CODE	RX FOR LTBI DISPOSITN. Date
	Y N Close Not close High-risk	M F Code: __/__/__ Age:	Y N		Code	__/__/__		Y N __/__/__	__/__/__ ____ mm Converter? Y N Y N	__/__/__ ____ mm Converter Y N	__/__/__ NL C ANC/TB NC/NTB ND U	Y N __/__/__	I II-N II-P III IV V	________ ____ mo.	Y N __/__/__ If not, code:	Code: ____ __/__/__
	Y N Close Not close High-risk	M F Code: __/__/__ Age:	Y N		Code	__/__/__		Y N __/__/__	__/__/__ ____ mm Converter? Y N Y N	__/__/__ ____ mm Converter Y N	__/__/__ NL C ANC/TB NC/NTB ND U	Y N __/__/__	I II-N II-P III IV V	________ ____ mo.	Y N __/__/__ If not, code:	Code: ____ __/__/__
	Y N Close Not close High-risk	M F Code: __/__/__ Age:	Y N		Code	__/__/__		Y N __/__/__	__/__/__ ____ mm Converter? Y N Y N	__/__/__ ____ mm Converter Y N	__/__/__ NL C ANC/TB NC/NTB ND U	Y N __/__/__	I II-N II-P III IV V	________ ____ mo.	Y N __/__/__ If not, code:	Code: ____ __/__/__
	Y N Close Not close High-risk	M F Code: __/__/__ Age:	Y N		Code	__/__/__		Y N __/__/__	__/__/__ ____ mm Converter? Y N Y N	__/__/__ ____ mm Converter Y N	__/__/__ NL C ANC/TB NC/NTB ND U	Y N __/__/__	I II-N II-P III IV V	________ ____ mo.	Y N __/__/__ If not, code:	Code: ____ __/__/__

RACE & ETHNICITY
1 = White only
2 = Black only
3 = Asian only
4 = Native Hawaiian/Pacific Islander only
5 = American Indian/ Alaska Native only
6= More than one race reported
H=Hispanic
NH=Not Hispanic

PLACE
H = Home
W = Work
L = Leisure
O = Other

SYMPTOMS
1 = Weight Loss
2 = Anorexia
3 = Cough
4 = Hemoptysis
5 = Night Sweats
6 = Fatigue
7 = Chest Pain
8 = Fever / Chills
9 = Other (specify)
N= None
U= Unknown

CHEST X-RAY
NL = Normal
C = Abnormal Cavitary
ANC/TB = Abnormal Non-Cavitary, Consistent w/TB
NC/NTB = Abnormal Non-Cavitary, Not consistent w/TB
ND = Not Done
U = Unknown

TB CLASS
I = Exposure, no evidence of latent TB infection (LTBI)
II-N =New LTBI, no evidence of disease
II-P =Prior LTBI, no evidence of disease
III = Confirmed active TB disease
IV = Old TB disease
V = Suspected active TB disease

DISPOSITION IF NO RX STARTED
1 = Rx for LTBI not medically indicated
2 = Previously completed full-course Rx
3 = Window Rx completed, full course not medically indicated
4 = Prior history of adverse reaction
5 = Refused interview
6 = Refused TST
7 = Refused chest x-ray (CXR)
8 = Refused Rx
9 = Died before Rx started
10= Moved before Rx started

RX DISPOSITION
1 = Completed full-course Rx for LTBI
2 = Died
3 = Moved, follow-up unknown
4 = Active TB developed
5 = Adverse Rx effects
6 = Contact chose to stop
7 = Lost to follow-up
8 = Provider decision

TB CONTACT ROSTER SUPPLEMENTAL PAGE _____

INDEX CASE	

CONTACT NAME, ADDRESS, HOME PHONE / OTHER PHONE	Warrants Evaluation Contact Type	SEX RACE & ETHNICITY DOB AGE	US-BORN	RELATION	PLACE	LAST EXPOSED	SYMPTOMS	PRIOR (+) TST	TST Read Result RETEST NEEDED?	F/U TST Read Result	CXR Date RESULT	Evaluation Completed	TB CLASS	RX REGIMEN	STARTED RX FOR LTBI? Date IF NOT, CODE	RX FOR LTBI DISPOSITN. Date
	Y N Close Not close High-risk	M F Code: ___/___/___ Age:	Y N		Code	___/___/___		Y N ___/___/___	___/___/___ _____ mm Converter? Y N Y N	___/___/___ _____ mm Converter Y N	___/___/___ NL C ANC/TB NC/NTB ND U	Y N ___/___/___	I II-N II-P III IV V	_____ mo.	Y N ___/___/___ If not, code:	Code: _____ ___/___/___
	Y N Close Not close High-risk	M F Code: ___/___/___ Age:	Y N		Code	___/___/___		Y N ___/___/___	___/___/___ _____ mm Converter? Y N Y N	___/___/___ _____ mm Converter Y N	___/___/___ NL C ANC/TB NC/NTB ND U	Y N ___/___/___	I II-N II-P III IV V	_____ mo.	Y N ___/___/___ If not, code:	Code: _____ ___/___/___
	Y N Close Not close High-risk	M F Code: ___/___/___ Age:	Y N		Code	___/___/___		Y N ___/___/___	___/___/___ _____ mm Converter? Y N Y N	___/___/___ _____ mm Converter Y N	___/___/___ NL C ANC/TB NC/NTB ND U	Y N ___/___/___	I II-N II-P III IV V	_____ mo.	Y N ___/___/___ If not, code:	Code: _____ ___/___/___
	Y N Close Not close High-risk	M F Code: ___/___/___ Age:	Y N		Code	___/___/___		Y N ___/___/___	___/___/___ _____ mm Converter? Y N Y N	___/___/___ _____ mm Converter Y N	___/___/___ NL C ANC/TB NC/NTB ND U	Y N ___/___/___	I II-N II-P III IV V	_____ mo.	Y N ___/___/___ If not, code:	Code: _____ ___/___/___
	Y N Close Not close High-risk	M F Code: ___/___/___ Age:	Y N		Code	___/___/___		Y N ___/___/___	___/___/___ _____ mm Converter? Y N Y N	___/___/___ _____ mm Converter Y N	___/___/___ NL C ANC/TB NC/NTB ND U	Y N ___/___/___	I II-N II-P III IV V	_____ mo.	Y N ___/___/___ If not, code:	Code: _____ ___/___/___
	Y N Close Not close High-risk	M F Code: ___/___/___ Age:	Y N		Code	___/___/___		Y N ___/___/___	___/___/___ _____ mm Converter? Y N Y N	___/___/___ _____ mm Converter Y N	___/___/___ NL C ANC/TB NC/NTB ND U	Y N ___/___/___	I II-N II-P III IV V	_____ mo.	Y N ___/___/___ If not, code:	Code: _____ ___/___/___

NOTES:

CA ARPE Contact Report Data Tallying Tool

Case Name:_____________________ **Case RVCT #:______________**

Case: o Sputum smear (+) o Sputum smear (-), TB culture (+) o Other pulmonary/laryngeal (not sputum smear+, not sputum culture+)

			If A='Yes'	If B='Yes', then	If 'LTBI',	If Started Rx, then
#	**Contact Name**	**A. Contact** -warrants eval -locatable	**B. Fully Evaluated**	**C. Evaluation Results** (from this investigation)	**E. Started Treatment for LTBI**	**F. Treatment Outcome**
		o Yes o No	o Yes o No	o Not newly infected* o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____

	Total number of contacts	**Total contacts evaluated**	**Total with TB disease**	**Total with LTBI**	**Started Treatment**	**Completed Treatment**
SUBCOUNT TOTALS (this page)						
FINAL COUNT TOTALS						

Subcount Totals for Reasons Treatment Not Completed: **2.____ 3.____ 4.____ 5.____ 6.____ 7.____ 8.____**

Final Count Totals for Reasons Treatment Not Completed: **2.____ 3.____ 4.____ 5.____ 6.____ 7.____ 8.____**

Codes for Reasons Treatment Not Completed:

2- Death 3- Contact Moved (follow-up unknown) 4- Active TB Developed 5- Adverse Effect of Medicine
6- Contact Chose to Stop 7- Contact is Lost to Follow-up 8- Provider Decision

*Not newly infected includes prior TST positive results.

Case Name:__________ Page____

			If A='Yes',	If B='Yes', then	If 'LTBI',	If Started Rx, then
#	**Contact Name**	**A. Contact** **-warrants eval -locatable**	**B. Fully Evaluated**	**C. Evaluation Results (from this investigation)**	**E. Started Treatment for LTBI**	**F. Treatment Outcome**
		o Yes o No	o Yes o No	o Not newly infected* o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____
		o Yes o No	o Yes o No	o Not newly infected o LTBI o TB case	o Started o Did not start	o Completed (1) o Not completed, code:____

	Total number of contacts	**Total contacts evaluated**	**Total with TB disease**	**Total with LTBI**	**Started Treatment**	**Completed Treatment**
SUBCOUNT TOTALS (this page)						
FINAL COUNT TOTALS						

Subcount Totals for Reasons Treatment Not Completed: 2.____ 3.____ 4.____ 5.____ 6.____ 7.____ 8.____
Final Count Totals for Reasons Treatment Not Completed: 2.____ 3.____ 4.____ 5.____ 6.____ 7.____ 8.____

Codes for Reasons Treatment Not Completed:

2- Death 3- Contact Moved (follow-up unknown) 4- Active TB Developed 5- Adverse Effect of Medicine
6- Contact Chose to Stop 7- Contact is Lost to Follow-up 8- Provider Decision

*Not newly infected includes prior TST positive results.

Aggregate Reports for Tuberculosis Program Evaluation:
Follow-up and Treatment for Contacts to Tuberculosis Cases

FP: F=Final, P=Preliminary Final Report

Reporting Area: LHJ

Cohort: Cohort

AB: A=January-June, B=July-December

Total TB Cases Reported: Total

Submitted By:

Telephone:

E-mail:

Date Submitted:

Part I. Cases and Contacts

		Types of Cases for Investigation: Sputum smear (+)		Sputum smear (–), cult. (+)		Other Pulmonary	
Cases for Investigation	Cases	Cases_Sm	(a1)	Cases_Cx	(a2)	Cases_Ot*	(a)
Cases with No Contacts	Nocontact	Nocontact_Sm	(b1)	Nocontact_Cx	(b2)	Nocontact_Ot*	(b)
Number of Contacts	Contact	Contact_Sm	(c1)	Contact_Cx	(c2)	Contact_Ot	(c)
Evaluated	Eval	Eval_Sm	(d1)	Eval_Cx	(d2)	Eval_Ot	(d)
TB Disease	TB	TB_Sm	(e1)	TB_Cx	(e2)	TB_Ot	(e)
Latent TB Infection	LTBI	LTBI_Sm	(f1)	LTBI_Cx	(f2)	LTBI_Ot	(f)
Started Treatment	Start	Start_Sm	(g1)	Start_Cx	(g2)	Start_Ot	(g)
Completed Treatment	COT	COT_Sm	(h1)	COT_Cx	(h2)	COT_Ot	(h)

Reasons Treatment Not Completed:		Reason[1] Rxoutcome[2] Reason_Sm Rxoutcome_Sm		Reason_Cx Rxoutcome_Cx		Reason_Ot Rxoutcome_Ot	
Death	Death	Death_Sm	(RTNC11)	Death_Cx	(RTNC21)	Death_Ot	RTNC31
Contact Moved (follow-up	Moved	Moved_Sm	(RTNC12)	Moved_Cx	(RTNC22)	Moved_Ot	RTNC32
Active TB Developed	TBdev	TBdev_Sm	(RTNC13)	TBdev_Cx	(RTNC23)	TBdev_Ot	RTNC33
Adverse Effect of Medicin	Adverse	Adverse_Sm	(RTNC14)	Adverse_Cx	(RTNC24)	Adverse_Ot	RTNC34
Contact Chose to Stop	Chose	Chose_Sm	(RTNC15)	Chose_Cx	(RTNC25)	Chose_Ot	RTNC35
Contact is Lost to Follow-u	Lost	Lost_Sm	(RTNC16)	Lost_Cx	(RTNC26)	Lost_Ot	RTNC36
Provider Decision	PD	PD_Sm	(RTNC17)	PD_Cx	(RTNC27)	PD_Ot	RTNC37
Still on Treatment	OnRx	OnRx_Sm*		OnRx_Cx*		OnRx_Ot*	

Part II. Evaluation Indices

No-Contacts Rate	Rnocont	Rnocont_Sm	(b1 ÷ a1), %	Rnocont_Cx	(b2 ÷ a2), %	Rnocont_Ot	(b ÷ a), %
Contacts Per Case	CpC	CpC_Sm	(c1 ÷ a1)	CpC_Cx	(c2 ÷ a2)	CpC_Ot	(c ÷ a)
Evaluation Rate	Reval	Reval_Sm	(d1 ÷ c1), %	Reval_Cx	(d2 ÷ c2), %	Reval_Ot	(d ÷ c), %
Disease Rate	Rtb	Rtb_Sm	(e1 ÷ d1), %	Rtb_Cx	(e2 ÷ d2), %	Rtb_Ot	(e ÷ d), %
Latent Infection Rate	Rltbi	Rltbi_Sm	(f1 ÷ d1), %	Rltbi_Cx	(f2 ÷ d2), %	Rltbi_Ot	(f ÷ d), %
Treatment Rate	Rtreat	Rtreat_Sm	(g1 ÷ f1), %	Rtreat_Cx	(g2 ÷ f2), %	Rtreat_Ot	(g ÷ f), %
Completion Rate	Rcot	Rcot_Sm	(h1 ÷ g1), %	Rcot_Cx	(h2 ÷ g2), %	Rcot_Ot	(h ÷ g), %

*Not available in TIMS. RTNC# =TIMS variable names

[1]Reason= 1) death, 2) moved, 3) TB, 4) adverse, 5) chose, 6) lost, 7) provider;

[2]RxOutcome=1) Completed, 2) death, 3) moved, 4) TB, 5) adverse, 6) chose, 7) lost, 8) provider

ARPE DATA DICTIONARY:

#	CDHS Variable	Description	Type	Len	TIMS Variable	Value
2	ab	Six month cohort	Char	1	DSH generated	A=Jan-June cohort B=July-Dec cohort
79	adverse	Total adverse effects of medicine	Num	8	DHS generated	
41	adverse_cx	Adverse effects of medicine, sputum smear (-), cult (+)	Num	8	rtnc24	
48	adverse_ot	Adverse effects of medicine, other pulmonary	Num	8	rtnc34	
34	adverse_sm	Adverse effects of medicine, smear (+)	Num	8	rtnc14	
60	cases	Total cases for investigation	Num	8	DHS generated	
6	cases_cx	Cases for investigation, sputum smear (-), cult (+)	Num	8	a2	
58	cases_ot	Cases for investigation,other pulmonary	Num	8	DHS generated	
5	cases_sm	Cases for investigation, sputum smear (+)	Num	8	a1	
80	chose	Total Contacts Chose to Stop RX	Num	8	DHS generated	
42	chose_cx	Contacts chose to stop RX, sputum smear (-), cult (+)	Num	8	rtnc25	
49	chose_ot	Contacts chose to stop RX, other pulmonary	Num	8	rtnc35	
35	chose_sm	Contacts chose to stop RX, sputum smear (+)	Num	8	rtnc15	
53	cohort	Year of report	Num	8	DHS generated	
10	cohortype	Year of report	Num	8	cohortype	
62	contact	Total number of contacts	Num	8	DHS generated	
11	contact_cx	Contacts, sputum smear(-), cult (+) cases	Num	8	c2	
9	contact_ot	Contacts, other pulmonary cases	Num	8	c	
10	contact_sm	Contacts, sputum smear(+) cases	Num	8	c1	
67	cot	Total Contacts Completed RX	Num	8	DHS generated	
27	cot_cx	Contacts completed RX, sputum smear (-), cult (+)	Num	8	h2	
25	cot_ot	Contacts completed RX, other pulmonary	Num	8	h	

ARPE DATA DICTIONARY:

#	CDHS Variable	Description	Type	Len	TIMS Variable	Value
26	cot_sm	Contacts completed RX, sputum smear (+)	Num	8	h1	
83	cpc	Total contacts per case	Num	8	DHS generated	
97	cpc_cx	Contacts per case, sputum smear (-), cult (+)	Num	8	DHS generated	
105	cpc_ot	Contacts per case, other pulmonary	Num	8	DHS generated	
91	cpc_sm	Contacts per case, sputum smear (+)	Num	8	DHS generated	
76	death	Total deaths	Num	8		
38	death_cx	Deaths, Sputum Smear (-), cult (+)	Num	8	rtnc21	
45	death_ot	Deaths, other pulmonary	Num	8	rtnc31	
32	death_sm	Deaths, sputum smear (+)	Num	8	rtnc11	
63	eval	Total contacts evaluated	Num	8		
15	eval_cx	Contacts evaluated, sputum smear (-), cult (+)	Num	8	d2	
13	eval_ot	Contacts evaluated, other pulmonary	Num	8	d	
14	eval_sm	Contacts evaluated, smear (+)	Num	8	d1	
3	fp	Report status	Char	1	F, P	F=final; P=preliminary
4	jurisdic	Reporting jurisdiction	Char	15	DHS generated	
1	lhj	Local heath jurisdiction	Char	15	DHS generated	
81	lost	Total contacts lost to follow-up	Num	8	DHS generated	
43	lost_cx	Contacts lost to follow-up, sputum smear (-), cult (+)	Num	8	rtnc26	
50	lost_ot	Contacts lost to follow-up, other pulmonary	Num	8	rtnc36	
36	lost_sm	Contacts lost to follow-up,sputum smear (+)	Num	8	rtnc16	
65	ltbi	Total contacts with Latent TB Infection	Num	8		
21	ltbi_cx	Latent TB infection, sputum smear (-), cult (+)	Num	8	f2	
19	ltbi_ot	Latent TB infection, other pulmonary	Num	8	f	
20	ltbi_sm	Latent TB infection, sputum smear (+)	Num	8	f1	
77	moved	Total moved (follow-up unk)	Num	8	DHS generated	
39	moved_cx	Moved (follow-up unk, sputum smear (-), cult (+)	Num	8	rtnc22	

ARPE DATA DICTIONARY:

#	CDHS Variable	Description	Type	Len	TIMS Variable	Value
46	moved_ot	Moved (follow-up unk), other pulmonary	Num	8	rtnc32	
31	moved_sm	Moved (follow-up unk), sputum smear (+)	Num	8	rtnc12	
61	nocontact	Total cases with no contacts	Num	8	DHS generated	
8	nocontact_cx	Cases with no contacts, sputum smear (-), cult (+)	Num	8	b2	
59	nocontact_ot	Cases with no contacts, other pulmonary	Num	8	DHS generated	
7	nocontact_sm	Cases with no contacts, sputum smear (+)	Num	8	b1	
54	onrx	Total still on RX	Num	8	DHS generated	
56	onrx_cx	Still on RX, sputum smear (-), cult (+)	Num	8	DHS generated	
57	onrx_ot	Still on RX, other pulmonary	Num	8	DHS generated	
55	onrx_sm	Still on RX, sputum smear (+)	Num	8	DHS generated	
82	pd	Total provider decision to stop LTBI treatment	Num	8	DHS generated	
44	pd_cx	Provider decision, sputum smear (-), cult (+)	Num	8	rtnc27	
51	pd_ot	Provider decision, other pulmonary	Num	8	rtnc37	
37	pd_sm	Provider decision, sputum smear (+)	Num	8	rtnc17	
88	rcot	Total completion rate	Num	8	DHS generated	
102	rcot_cx	Completion rate, sputum smear (-), cult (+)	Num	8	DHS generated	
110	rcot_ot	Completion rate, other pulmonary	Num	8	DHS generated	
96	rcot_sm	Completion rate, sputum smear(+)	Num	8	DHS generated	
68	reason	Total reasons treatment not completed	Num	8	DHS generated	
70	reason_cx	Reasons treatment not completed, sputum smear(-), cult (+)	Num	8	DHS generated	
71	reason_ot	Reasons treatment not completed, other pulmonary	Num	8	DHS generated	
69	reason_sm	Reasons treatment not completed, sputum smear (+)	Num	8	DHS generated	
28	reportid	Report identifier (unique 18 alpha-numeric code)	Char	18	TIMS report identifier	18 alpha-numeric characters
29	reportname	Report name (contains year, six month cohort code, name and numeric code for lhj)	Char	25	TIMS report name	

Note: Shaded area indicates original TIMS ARPE variable

ARPE DATA DICTIONARY:

#	CDHS Variable	Description	Type	Len	TIMS Variable	Value
30	reportstatus	Report status	Char	1	TIMS report status	F=final, P=preliminary
84	reval	Total evaluation rate	Num	8	DHS generated	
98	reval_cx	Evaluation rate, sputum smear (-), cult (+)	Num	8	DHS generated	
106	reval_ot	Evaluation rate, other pulmonary	Num	8	DHS generated	
92	reval_sm	Evaluation rate, sputum smear (+)	Num	8	DHS generated	
86	rltbi	Total latent infection rate	Num	8	DHS generated	
100	rltbi_cx	Latent infection rate, sputum smear (-), cult (+)	Num	8	DHS generated	
108	rltbi_ot	Latent infection rate, other pulmonary	Num	8	DHS generated	
94	rltbi_sm	Latent infection rate, sputum smear (+)	Num	8	DHS generated	
89	rnocont	Total no-contacts rate	Num	8	DHS generated	
103	rnocont_cx	No-contacts rate, sputum smear (-), cult (+)	Num	8	DHS generated	
104	rnocont_ot	No-contacts rate, other pulmonary	Num	8	DHS generated	
90	rnocont_sm	No-contacts rate, sputum smear (+)	Num	8	DHS generated	
85	rtb	Disease rate, all contacts	Num	8	DHS generated	
99	rtb_cx	Disease rate, sputum smear (-), cult (+)	Num	8	DHS generated	
107	rtb_ot	Disease rate, other pulmonary	Num	8	DHS generated	
93	rtb_sm	Disease rate, sputum smear (+)	Num	8	DHS generated	
87	rtreat	Treatment rate, all contacts	Num	8	DHS generated	
101	rtreat_cx	Treatment rate, sputum smear (-), cult (+)	Num	8	DHS generated	
109	rtreat_ot	Treatment rate, other pulmonary	Num	8	DHS generated	
95	rtreat_sm	Treatment rate, sputum smear (+)	Num	8	DHS generated	
72	rxoutcome	Total treatment outcome	Num	8	DHS generated	
74	rxoutcome_cx	Treatment outcome, sputum smear (-), cult (+)	Num	8	DHS generated	
75	rxoutcome_ot	Treatment outcome, other pulmonary	Num	8	DHS generated	
73	rxoutcome_sm	Treatment outcome, sputum smear (+)	Num	8	DHS generated	

Note: Shaded area indicates original TIMS ARPE variable

ARPE DATA DICTIONARY:

#	CDHS Variable	Description	Type	Len	TIMS Variable	Value
66	start	Total contacts started RX	Num	8	DHS generated	
24	start_cx	Started treament, sputum smear (-), cult (+)	Num	8	g2	
22	start_ot	Started treatment, other pulmonary	Num	8	g	
23	start_sm	Started treatment, sputum smear (+)	Num	8	g1	
64	tb	Total TB disease	Num	8		
18	tb_cx	TB disease, sputum smear (-), cult pos (+)	Num	8	e2	
16	tb_ot	TB disease, other pulmonary	Num	8	e	
17	tb_sm	TB disease, sputum smear (+)	Num	8	e1	
78	tbdev	Total active TB developed	Num	8	DHS generated	
40	tbdev_cx	Active TB developed, sputum smear (-), cult (+)	Num	8	rtnc23	
47	tbdev_ot	Active TB developed, other pulmonary	Num	8	rtnc33	
33	tbdev_sm	Active TB developed, sputum smear (+)	Num	8	rtnc13	
52	total	Total TB cases reported	Num	8	totaltb	

Note: Shaded area indicates original TIMS ARPE variable

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HIV, STD, AND TB PREVENTION
DIVISION OF TUBERCULOSIS ELIMINATION
ATLANTA, GEORGIA 30333

Form Approved
OMB No. 0920-0457
Exp. Date 08/31/2006

Aggregate Reports for Tuberculosis Program Evaluation:
Targeted Testing and Treatment for Latent Tuberculosis Infection

Reporting Area: _____

Cohort Year: _____

Closure Date for Follow-up: 8 / 15 / _____ (August 15 of the second year after the cohort year)

Part I. Testing Counts

	Testing Formats:				
	Targeted Testing				Admin.
	Project		Individual		
Sought, Enlisted, or Registered	(a1)		(a2)		(a)
Evaluated	(b1)		(b2)		(b)
TB Disease	(c1)		(c2)		(c)
Latent TB Infection	(d1)		(d2)		(d)
	Medical Risk	**Pop. Risk**	**Medical Risk**	**Pop. Risk**	
Latent TB Infection, (sorted by risk)	($e1_m$)	($e1_p$)	($e2_m$)	($e2_p$)	(e)
Candidates for Treatment	($f1_m$)	($f1_p$)	($f2_m$)	($f2_p$)	(f)
Started Treatment	($g1_m$)	($g1_p$)	($g2_m$)	($g2_p$)	(g)
Completed Treatment	($h1_m$)	($h1_p$)	($h2_m$)	($h2_p$)	(h)
Reasons Treatment Not Completed:					
Death					
Patient Moved (follow-up unknown)					
Active TB Developed					
Adverse Effect of Medicine					
Patient Chose to Stop					
Patient is Lost to Follow-up					
Provider Decision					

Part II. Evaluation Indices for Testing (Automated in TIMS, and converted to percentage)

	Project		Individual		Admin.
Evaluation Rate	(b1÷a1)%		(b2÷a2)%		(b÷a)%
Disease Rate	(c1÷b1)%		(c2÷b2)%		(c÷b)%
Latent Infection Rate	(d1÷b1)%		(d2÷b2)%		(d÷b)%
	Medical Risk	**Pop. Risk**	**Medical Risk**	**Pop. Risk**	
Candidate Rate	($f1_m$÷$e1_m$)%	($f1_p$÷$e1_p$)%	($f2_m$÷$e2_m$)%	($f2_p$÷$e2_p$)%	(f÷e)%
Treatment Rate	($g1_m$÷$f1_m$)%	($g1_p$÷$f1_p$)%	($g2_m$÷$f2_m$)%	($g2_p$÷$f2_p$)%	(g÷f)%
Completion Rate	($h1_m$÷$g1_m$)%	($h1_p$÷$g1_p$)%	($h2_m$÷$g2_m$)%	($h2_p$÷$g2_p$)%	(h÷g)%

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HIV, STD, AND TB PREVENTION
DIVISION OF TUBERCULOSIS ELIMINATION
ATLANTA, GEORGIA 30333

Aggregate Reports for Tuberculosis Program Evaluation:
Targeted Testing and Treatment for Latent Tuberculosis Infection (continued)

Part III. Referral Counts

Referred, TB Infection:	Medical Risk	Pop. Risk	Admin.
Referred	(i_m)	(i_p)	(i)
TB Disease	(j_m)	(j_p)	(j)
Latent TB Infection	(k_m)	(k_p)	(k)
Candidates for Treatment	(l_m)	(l_p)	(l)
Started Treatment	(m_m)	(m_p)	(m)
Completed Treatment	(n_m)	(n_p)	(n)

Reasons Treatment Not Completed:			
Death			
Patient Moved (follow-up unknown)			
Active TB Developed			
Adverse Effect of Medicine			
Patient Chose to Stop			
Patient is Lost to Follow-up			
Provider Decision			

Part IV. Evaluation Indices for Referrals
(Automated in TIMS, and converted to percentage)

Referred, TB Infection:	Medical Risk	Pop. Risk	Admin.
Disease Rate	($j_m \div i_m$)%	($j_p \div i_p$)%	(j÷i)%
Candidate Rate	($l_m \div k_m$)%	($l_p \div k_p$)%	(l÷k)%
Treatment Rate	($m_m \div l_m$)%	($m_p \div l_p$)%	(m÷l)%
Completion Rate	($n_m \div m_m$)%	($n_p \div m_p$)%	(n÷m)%

Basic Instructions for the
Aggregate Reports for Tuberculosis Program Evaluation
Targeted Testing and Treatment for Latent Tuberculosis Infection

Note: instructions provided by the Centers for Disease Control and Prevention (CDC):

Note: The instructions for this report are not a substitute for guidelines about tuberculosis (TB) diagnosis, treatment, or control. Any contradictions between the implied content of these instructions and the health department's policies and practices should be discussed, according to the context, with a consultant from the local or state TB program or the Division of Tuberculosis Elimination (DTBE).

This report is an annual summary of activities to find and treat latent TB infection through targeted and other testing. "Testing" means diagnostic tests done to find mainly latent TB infection. Testing and follow-up of contacts, however, are not included in this report. Active case finding (i.e., seeking mainly TB disease) should not be included in this report, either, unless the individuals also are being tested for latent TB infection.

At its discretion, the health department may include testing activities that are carried out by partner or contract entities on its behalf, if the health department has assurance that the data are satisfactory. (Generally, this means that the health department has contributed to the work, through training, consultation, supplies, funding, or direct assistance by health-department personnel, and the quality of the testing, treatment, and data are monitored routinely and meet the expectations of the health department.)

Systematic skin testing that is done partly for infection control and surveillance purposes (e.g., the annual testing of health care workers) generally should not be included in this report, unless the health department determines that this testing has mixed features of both targeted testing and surveillance. If latently TB-infected individuals are diagnosed during these other types of testing programs and referred to the health department for other testing and for treatment, they should be counted under the second half of this report, **Referral Counts**.

The second half of this report, **Referral Counts**, mainly records the treatment of latent TB infection when the denominator data (i.e., the number of persons tested) are unavailable or inappropriate for this report. **Referral Counts** sums up the follow-up of persons who are referred to the health department because of possible latent TB infections. At its discretion, the health department also may include the data generated by other entities that carry out these same activities on its behalf, if the health department somehow assists with the care of the patients (e.g., providing medication, or monitoring adherence) and participates in collecting the data.

Cohort Year. The data are accumulated into a cohort over one calendar year. Depending on the circumstances, the year for entering an individual patient into a cohort is the date of registration at the health department or the date that an individual is tested, listed for testing, or at least sought for testing as part of a target group. A person who is included in testing activities more than once in a year should be counted for each event.

Closure Date for Follow-up. A preliminary report should be tabulated by August 15 following the cohort year (i.e., before all the completion-of-therapy data are available) and, depending on the context, shared with the program consultant at the state health department or DTBE. The final results, including the completion-of-therapy data, are due at DTBE by August 15 one year later.

Part I. Testing Counts.
This section includes the count of persons who are sought or enrolled for testing and the outcomes of testing and treatment.

Testing Formats. The selection of a testing category (**Targeted Testing** [**Project** or **Individual**], or **Admin**.) is determined by the structure of the testing activities and the public health intentions. The data in **Part I** flow down the columns under these categories.

Targeted Testing. This is the sum of testing projects or testing of individuals, with the testing focused on specific groups or individuals who should be tested for latent TB infection as per current guidelines. The groups or individuals should be at an increased risk for TB because of a high prevalence of latent infection, ongoing TB transmission, or a high prevalence of concurrent medical conditions that promote the progression of latent TB infection to active TB disease.

Project. Usually, testing projects for groups are done at sites outside of the health department, as determined by the convenience or needs of the groups being tested. Such testing projects might be done only once during a limited period, or they can be recurrent (e.g., annual testing at a correctional facility) or ongoing (e.g., testing of all new admissions to a homeless shelter).

Note: The targeted testing projects that are supported by dedicated funding through a TB cooperative agreement should be included in the sum for the **Project** category. Separate counts for each project should be retained by the funding recipient for inclusion in the annual narrative for the TB cooperative agreement.

Individual. This is the sum of testing that is done, one person at a time or group-wise but outside of testing projects, when testing is in accordance with national, state, or local guidelines for selecting persons who are at risk for TB and who are expected to be candidates for treatment if they have latent TB infection. Often the testing is done at a health department clinic.

Admin. (i.e., Administrative). This is the sum of testing for latent TB infection that is done when the testing is a low public-health priority because the tested persons or groups are not at risk for TB and might not even be candidates for treatment of latent TB infection. Often this testing is required by regulations or policies created outside of the TB control program. (Persons who are tested for administrative reasons should be counted under **Targeted Testing** and **Individuals** if the health department determines that they would fit into a TB risk category.)

Note about overextended contact investigations: As part of a contact investigation, persons who are tested because of "mass screening" following minimal or no TB exposure also can be counted in the report for targeted testing (usually under **Admin.**) instead of in the report for contact follow-

up, at the discretion of the health department.

Sought, Enlisted, or Registered. For **Project** under **Targeted Testing**, this is the count of individuals who should be tested as part of the project, whether or not they can be evaluated (e.g., persons who decline testing would still be counted here because they were sought for testing). For the other testing formats, this is the count of persons who are listed or registered by the health department for testing, whether or not any further testing or evaluation is done.

Evaluated. This is the count of persons who have been evaluated to the point where a determination can be made about these outcomes: latent TB infection, or TB disease (see the outcome categories, below). Most persons who are counted under **Evaluated** receive a tuberculin skin test. For persons who have a record of disease or latent infection that already has been diagnosed, a skin test and other examinations might not be needed and the outcome can be classified, and therefore they are counted under **Evaluated**. Persons who receive a skin test are not counted under **Evaluated** until the test has been read. Persons who have a positive skin test result are not counted under **Evaluated** until active TB disease has been excluded by any further tests and examinations as indicated. (Tests for cutaneous anergy should not be considered for classifying outcomes for this report.)

TB Disease. Persons are counted under this outcome if they have TB disease (i.e., active TB) at the time of the evaluation in the testing process, even if the illness has been previously diagnosed and reported and whether or not the person is undergoing treatment at the time of the evaluation. Such cases should fit the CDC Report of a Verified Case of Tuberculosis (RVCT) definition, and these cases should be referred for morbidity surveillance according to the local reporting requirements. Old, resolved TB cases that have been treated and cured already or that have spontaneously healed should be counted under **Latent TB Infection** even if a skin test is not done. (Note: In the other report, contact follow-up, previous TB disease is not counted as an evaluation outcome.)

Latent TB Infection. Persons are counted under this outcome if they have a latent TB infection but not TB disease. Latent TB infection is determined by the result of a current tuberculin skin test (as interpreted according to national, state, or local diagnostic guidelines), by a known latent TB infection that already has been diagnosed from a previous skin test result, whether or not treatment has been taken, or by resolved prior TB disease whether or not it has been treated. Persons who are still receiving anti-TB medication for a TB case should be counted under **TB Disease**. (Note: In the other report, contact follow-up, previously-known latent TB infection is not counted as an evaluation outcome.)

Note about "anergy": In making a diagnosis of latent TB infection, only the results from tuberculin skin tests should be considered, not from skin tests with other antigens (i.e., "control" antigens, or an "anergy panel"). However, if persons with a negative tuberculin skin test result are to be treated for suspected latent TB infection, then they should be counted in this report as TB infected.

Latent TB Infection, (sorted by risk). Under the **Project** and **Individual** formats of **Targeted Testing**, the persons who have latent TB infection are divided into categories according to TB risk factors. Every person who is counted as latently TB infected should be classified into one of these

two categories: **Medical Risk** and **Pop. risk**. Persons who have both a medical risk and a population risk should be counted under **Medical Risk**. Persons who have no known risks should be counted under **Pop. risk**.

Medical Risk. Latently TB-infected persons are counted under this category if they have a condition known to predispose to TB disease, usually a concurrent medical diagnosis (see box, below). The treatment of latent TB infection has increased urgency in this target category.

HIV infection
Tuberculin skin test conversion
Fibrotic lesions (on chest X-ray) consistent with old, healed TB
Injection drug use
Diabetes mellitus
Prolonged high-dose corticosteroid therapy or other intensive immunosuppressive therapy
Chronic renal failure
Some hematologic disorders, such as leukemia or lymphoma
Specific malignant neoplasms, such as carcinoma of the head or neck
Weight at least 10% less than ideal body weight
Pulmonary silicosis
Gastrectomy, or jejunoileal bypass
Age $\leq$ 5 years
Recent exposure to TB

Pop. (population) Risk. Latently TB-infected persons are counted under this category if they are members of socially or demographically defined groups known to have a high prevalence rate of TB infection or a high transmission rate (see box, below).

Residency or occupation in high-risk congregate settings:
Prisons and jails
Health care facilities
Nursing homes and long-term facilities for the elderly
Shelters for homeless persons
Birth in a country having a high prevalence or incidence of TB. Includes:
Immigrants
Refugees
Students
Some migrant workers
Socioeconomic predictors of exposure:
Low income
Inner-city residence
Migrant labor

Candidates for Treatment. Latently TB-infected persons are counted in this category if they should receive treatment, according to the treatment guidelines in effect at the time. Counting under this category should be determined according to medical and epidemiological factors, even

if treatment will not be prescribed because of other factors. Persons who are not candidates for treatment because of temporary conditions (e.g., treatment will be deferred because of pregnancy) should not be counted under this category, even if treatment is planned for the future. When the deferred treatment is given, it can be counted in **Part III. Referral Counts**. (Note: In the other report, contact follow-up, the **Candidates for Treatment** category is not included.)

Started Treatment. A person who has latent TB infection is counted under this category after the first dose of a planned full treatment course for latent TB infection. The determination of whether the first dose has been taken is based on the best available information, which is often the person's statement. If a person is lost to follow-up after treatment was prescribed, and information is unavailable about whether any medication was taken, then treatment can be considered started if the medicine was picked up from a clinic or pharmacy.

Completed Treatment. (Note: this category is based partly on an arbitrary definition of completion. It might not be equivalent to an adequate course of therapy.) A person is counted under this category (1) if the prescribing provider, believing that an adequate regimen has been received, discontinues treatment, and (2) if the person has taken at least 80% of the prescribed doses in a therapy course, within a period of 150% of the selected duration of therapy. The determination about whether the definition is met is made from the best available information, which is generally the provider's records and the person's statements.

Reasons Treatment not Completed: This section catalogues some general reasons that the treatment for latent TB infection is not being completed.

Death. Persons who were receiving treatment on schedule but who had treatment interrupted by death before completing are counted under this category. (Note: Because of the seriousness of this outcome and the unreliability of anecdotal reports, a verification of any deaths is helpful for accuracy in reporting.)

Patient Moved (follow-up unknown). Persons who do not complete treatment because they have moved or migrated from the jurisdiction of the health department should be counted under this category when follow-up information is unavailable. However, if the health department receives specific follow-up (e.g., **Completed Treatment** or **Lost to Follow-up**) from a receiving jurisdiction, then the outcome should be counted accordingly.

Adverse Effect of Medicine. Persons who do not complete treatment because of adverse effects (including drug-drug or drug-food interactions) of anti-TB medications should be counted in this group if a health care provider documents the problem and determines that the medicine should be discontinued. If a person stops taking the medicine because of an adverse effect but a provider does not recommend the discontinuation, then the reason for stopping treatment should be counted as **Patient Chose to Stop**.

Patient Chose to Stop. Persons who do not complete treatment should be counted in this category if they decide to stop taking their medicine before they have received a complete regimen, and a health care provider has not determined that the medicine should be discontinued for a medical reason.

Patient is Lost to Follow-up. Persons whose treatment status at the end of the expected treatment regimen is incomplete or indeterminate, because the health department cannot locate them for determining a more specific outcome, should be counted in this category.

Provider Decision. If a health care provider determines that the treatment for latent TB infection should be stopped because of concerns about the benefits, the safety, or the practicality of treatment (e.g., a person has such erratic attendance at the clinic that the adequacy and the safety of the treatment cannot be monitored), then this is the reported reason.

Part II. Evaluation Indices for Testing.
This section of the report is the summary statistics that are calculated from the aggregate data entered into **Part I** of the report. The indices are calculated automatically and presented as percentages by TIMS. The formulae are shown in the paper-copy table to show the source figures for the calculations.

Part III. Referral Counts.
Persons are included in this section when they are being evaluated for the treatment of a latent TB infection, usually diagnosed with a positive tuberculin skin test result, and when they cannot be counted as part of the testing denominators in the **Part I** of the report. **Part III** also includes the persons with latent TB infection who had their treatment delayed beyond a reporting period after they were evaluated, and it includes the certain contacts who cannot be counted under the treatment categories in the report of contact follow-up.

Referred. This is the number of persons who are registered for the confirmation (and often treatment) of presumed latent TB infection, whether or not TB disease has been excluded already.

TB Disease. As defined for **Part I**.

Latent TB Infection. As defined for **Part I**.

Candidates for Treatment. As defined for **Part I**.

Started treatment. As defined for **Part I**.

Completed treatment. As defined for **Part I**.

Reasons treatment not completed: All reasons as defined for **Part I**.

Part IV. Evaluation Indices for Referrals.
This part is similar to **Part II**, except that rates for evaluation and infection are not included.

Aggregate Reports for Tuberculosis Program Evaluation: Targeted Testing and Treatment for Latent Tuberculosis Infection (ARPE-TT)

Reporting Instructions

Local health jurisdictions (LHJs) receiving federal funding for tuberculosis targeted testing activities are required to complete and submit the ARPE-TT. The following outlines the due dates and where to send the reports.

Each year, both a preliminary ARPE-TT and a final ARPE-TT are due.

- The full year preliminary ARPE-TT is due in the following year. (e.g. 2003 ARPE-TT preliminary is due in 2004). See below table for specific month of due date.

- The full year final ARPE-TT is due in two years (e.g. 2003 ARPE-TT final is due in 2005). See below table for specific month of due date.

Award administration type	LHJs	ARPE-TT due dates	Send to:
Targeted testing funding is given directly through CDC cooperative agreements	Los Angeles, San Diego, and San Francisco Counties	August 15 of each year	1) Andy Heetderks Field Services Branch Division of TB Elimination Centers for Disease Control and Prevention 1600 Clifton Rd. MS E-10 Atlanta, CA 30333 Ph: 404-639-8130 Fx: 404-639-8958 andy.heetderks@cdc.gov 2) cc: Janice Westenhouse TB Control Branch CA Dept of Health Services 850 Marina Bay Parkway Building P, 2nd Floor Richmond, CA 94804 Ph: 510-620-3055 Fx: 510-620-3030 jwestenh@dhs.ca.gov
Federally-funded targeted testing projects are administered through the State of California Tuberculosis Control Branch (TBCB)	Orange County	July 1 of each year	Janice Westenhouse (see above address) Note: TBCB will forward the ARPE-TT to CDC.

CASE CONTACT ROSTER

INDEX CASE / SUSPECT INFORMATION

Case manager name:_____ Case/suspect out of jurisdiction ☐No ☐Yes, Jurisdiction☐☐☐☐☐☐☐☐☐☐☐☐

Initial interview date: ☐☐/☐☐/☐☐☐☐ Follow-up interview date: ☐☐/☐☐/☐☐☐☐

(1) Last name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ First name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ MI ☐

(2) Date of birth ☐☐/☐☐/☐☐☐☐ (3) Patient number ☐☐☐☐☐☐☐☐

(4) State TB registry (RVCT) number ☐☐☐☐☐☐☐☐☐ (5) Gender ☐Female ☐Male

(6) Date index case/suspect identified ☐☐/☐☐/☐☐☐☐ (7) Initial TB classification ☐TB 3 ☐TB 5

(8) Sputum smear ☐Positive ☐Negative ☐Not done (9) Sputum culture ☐Positive ☐Negative ☐Not done

(10) Other culture ☐ Positive ☐Negative ☐Not done Other culture source ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

(11) Site of disease ☐Pulmonary ☐Extra-Pulmonary , indicate ☐Pleural ☐Laryngeal (12) Cavitary chest x-ray ☐Yes ☐No

(13) Drug susceptibility INH: ☐R ☐S ☐N/D RIF: ☐R ☐S ☐N/D EMB: ☐R ☐S ☐N/D PZA: ☐R ☐S ☐N/D SM: ☐R ☐S ☐N/D

(14) Period of infectiousness from ☐☐/☐☐/☐☐☐☐ to ☐☐/☐☐/☐☐☐☐

(15) If the CI was discontinued, specify why ☐ TB controller decision ☐ Index case/suspect determined not to have active TB disease date☐☐/☐☐/☐☐☐☐

(16) Final TB classification ☐TB 0 ☐TB 2 ☐TB 3 ☐TB 4 (17) Date the patient was verified as a TB case (count date) ☐☐/☐☐/☐☐☐☐

(18) What is the patient's primary language?_____ (19) What language was used to conduct the case interview?_____

(20) Contacts out of county ☐No ☐Yes, County☐☐☐☐☐☐☐☐☐☐☐☐☐☐

(21) Where did the index case/suspect typically spend time during their infectious period?

(a)_____

(b)_____

(c)_____

(d)_____

(e)_____

(22) Common address of contacts:

Street_____

City_____ State ☐☐

Zip Code☐☐☐☐☐

Common telephone of contacts: (☐☐☐) ☐☐☐-☐☐☐☐

CASE CONTACT ROSTER

INDEX CASE/SUSPECT INFORMATION: Last Name_______________________________ First Initial☐ DOB☐☐/☐☐/☐☐☐☐

LIST OF CONTACTS TO THE INDEX CASE / SUSPECT

Last Name	First Name	DOB	Age	LHJ[1]	Relation to case	Country of Birth	Documented prior TST If yes, Result	1st TST date Result	2nd TST date Result	CXR Result[2]	LTBI/ Window recommended	LTBI/ Window Start date End date	LTBI/ Window Rx Status[3]	Comments
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		
		___/___/___					Yes or No ☐☐mm	___/___/___ ☐☐mm	___/___/___ ☐☐mm		Yes or No	___/___/___ ___/___/___		

[1]LHJ: Indicate the local health jurisdiction conducting the contact investigation

[2]Code for CXR Result: 1 – Normal 2 – Abnormal, consistent with TB 3 – Abnormal, NOT consistent with TB

[3]Code for Rx Status: 1 - LTBI Treatment Complete; 2 - Final TST negative, window prophylaxis ended; 3 - Contact chose to stop; 4 - Adverse Reaction-contact chose to stop; 5 - MD chose to stop; 6 - Adverse Reaction-MD advised to stop; 7 - Contact moved (f/u unknown); 8 - Lost; 9 - Died; 10 - Active TB developed; 11 - Other

Page _____ out of _____

INDEX CASE/SUSPECT DATA VARIABLES

1. Case manager name	Name of the case manager assigned to the index case or suspect
2. Name of index case/suspect	Last, first, and middle initial of the index case or suspect
3. Alias	Alias used by index case or suspect
4. Guardian information	Information about guardian (address, city, state, phone number), if the index case or suspect is a minor or dependant
5. Date of birth	Date of birth of the index case or suspect
6. Social security number	Social security number of the index case or suspect
7. Current location information	Current address, city, state, phone number of the index case or suspect
8. Emergency contacts	Name and phone number of a person to reach if an emergency
9. Residences during infectious period if unstably housed	List address, city, state the index case or suspect spent time during infectious period
10. State TB registry number	The state case number (RVCT number) that contains a maximum of 9 alphanumeric character
11. Local case number	Patient number used by the local health jurisdiction to identify the index case or suspect
12. Sex	The gender of the index case or suspect: Male, female, unknown
13. Race/Ethnicity	Race/ethnicity as reported by the index case or suspect: White, Black, Hispanic, Asian, Native Hawaiian/Pacific Islander, American American/native Alaskan
14. Country of birth	The country in which the index case/suspect born
15. Length of time in the U.S.	If foreign-born, how long has the index case/suspect been in the U.S?
16. What is the patient's primary language?	What is the language that the patient primarily uses?
17. Preferred language	What is the preferred language of the patient?
18. \What language was used to conduct the case interview?	What language was used to interview the patient?
19. Methods of translation/interpretation	What method of translation was used to interview the patient? (E.g., interviewer, family member, non-family member, video/phone, NA, other)
20. Settings of potential TB transmission: Where did the	List the 10 places the index case or suspect spent time while they were infectious. Places of most interest are areas that the

index case/suspect typically spend time during their infectious period?	index case/suspect had and opportunity to infect others (e.g., in living situation, school/place of employment, places of social or recreational activities, congregate settings such as jail or homeless shelter, substance abuse with social implications such as crack cocaine)
21. Health care provider for TB	Who provided health care management of TB disease (public health department, private MD, both, other)?
22. Site of Disease	Indicate the site of TB disease: Pulmonary (index case has pulmonary disease), Extra-pulmonary (index case has TB disease outside the lungs and/or pleural, indicate whether pleural or laryngeal)
23. Extra-pulmonary site	Specify site if site of disease is extra-pulmonary
24. TB symptoms	What TB symptoms did the patient have? Check all that apply: Cough, fever, hoarseness, hemoptysis, chills, chest pain, night sweats, loss of appetites, weight loss, persistent fatigue/malaise, other
25. TB symptoms start date	When did the patient start having TB symptoms?
26. Chest x-ray (CXR) results	Chest x-ray results of the patient: Normal (CXR has no abnormalities consistent with TB); Abnormal, consistent with TB; Abnormal, not consistent with TB; Not done
27. Cavitary CXR?	If CXR result(s) was abnormal, did the patient have a cavitary lesion on the chest radiograph? Yes, no, unknown
28a. TB medications	List TB medications: INH, RIF, PZA, EMB, Other drugs
28b. TB medication: start dates	Dates each TB medication was started
28c. TB medication: stop dates	Dates each TB medication was discontinued
29. Sputum smear result	Result of the sputum smear collected from the index case or suspect: Positive (index case is known to be sputum smear positive at the time of the CI), Negative (index case is known to be sputum smear negative at the time of the CI), Not done (sputum smears were not done for the index case); Unknown
30. Sputum culture results	Result of the sputum culture collected from the index case or suspect: Positive (index case is known to be sputum culture positive for *M. tb* at the time of the CI), Negative (index case is known to be sputum culture negative for *M. tb* at the time of the CI), Not done (sputum cultures were not done for the index case); Unknown
31a. Other Culture: result(s)	Results of the non-sputum culture collected from the index case or suspect: Positive (index case is known to be culture positive for *M. tb* at the time of the CI), Negative (index case is known to be culture negative for *M. tb* at the time of the CI), Not done (no cultures were not done for the index case); Unknown
31b. Other Culture: Site	If other than sputum, indicate the site of non-sputum cultures (i.e. bronchial wash, lymph node, etc)
32. Drug Susceptibility	Indicate the drug susceptibility (Sensitive, Intermediate, Resistant, Not done, Unknown) of the TB strain to each of the drugs: INH, RIF, PZA, EMB, Other drugs (specify up to 4 other drugs)

33a. Documented previous history of TB disease	Did the patient have a previous episode of TB disease? Yes, no, unknown
33b. Year of previous TB disease diagnosed	Year previous TB disease was diagnosed
34a. Previous history of TB treatment	Did the patient receive treatment for a previous episode of TB disease? Yes, no, unknown
34b. Location of previous TB treatment	Where was the patient treated for the previous episode of TB disease?
34c. List TB medications for the previous TB treatment	List each of the TB medications for previous TB treatment: INH, RIF, PZA, EMB, other drugs
34d. Duration of previous TB treatment	How long was the patient on the listed TB medications
35. History of exposure to TB disease	Did the patient have prior exposure to an infectious TB case(s)? Yes, no, unknown
36. Infectious period start date	The start date of the case's period of infectiousness. Consult the CDHS/CTCA Tuberculosis Guidelines on how to determine the infectious period
37. Infectious period end date	The date of the case ceased to be infectious. Consult the CDHS/CTCA Tuberculosis Guidelines on how to determine the infectious period
38. HIV infection status	Has the patient tested positive for HIV infection? Yes, no, not tested, unknown
39. HAR number	State HIV/AIDS Registry System patient number
40. Date index case/suspect identified	The date the local health jurisdiction first learned about the existence of the index case or suspect
41. Date of initial interview	Date the case/suspect was first interviewed
42. Date(s) of follow-up interview(s)	Date(s) of subsequent interviews of the case/suspect (give space for at least 4 possible entries)
43. Case/suspect out of the jurisdiction	Is the index case/suspect is a resident of another local health jurisdiction?
44. Name of jurisdiction if case/suspect from out of the jurisdiction	The name of the jurisdiction which referred the case/suspect for evaluation
45. Initial TB classification	TB status of index case or suspect at the time the contact investigation is initiated. Indicate either TB 3 (case) or TB 5 (suspect)
46. Final TB Classification	Indicate the final TB classification of the index case: TB 0 Not TB; TB 2 TB infection but no disease, normal CXR; TB 3 Confirmed TB case; TB 4 Old, healed TB with fibrosis on CXR
47. If contact investigation was discontinued, specify why	TB controller decision: TB Control Officer, after review of the case, determined that further evaluation of contacts was unnecessary; Index case/suspect was determined not to have active TB disease: It was determined that index case/suspect was not a TB case (i.e. non-TB, TB 4, TB 2). Record date of discontinuation of follow-up.

48. Date the patient was verified as a TB case (count date)	The date the local health jurisdiction (LHJ) staff verified the index case/suspect verified the case as active TB
49. Contacts out of county	Are any of the contacts to the index case clients of the local health jurisdiction?
50. Name of jurisdiction if contact(s) from out of county	Record the name of the jurisdiction from which the contacts were referred for evaluation

Comparison of CI data elements recommended in 1998 to those recommended in 2005

A. Index Case Data Elements

Recommendation Area	1998 CDHS/CTCA Joint Guidelines[1]	2005 NTCA/CDC National Guidelines[2]
Identifiers / Demographics	Name Date of Birth Case number	Name Date of Birth SSN Home address (shelter if homeless) and phone Patient number (assigned by local TB program) RVCT number (to be completed when it becomes available) Gender Race and ethnicity Country of birth Time in the U.S. HARS #, if applicable
General interview details	Case manager Date assigned Date completed	Initial interview date Follow-up interview date Was interview conducted in appropriate language? ▪ Patient's primary language ▪ Language used to conduct case interview Was a translator used? (professional or family/friend?)
Disease characteristics	Smear status Smear conversion date CXR done (y/n) Mtb (+) (y/n) Drug resistance profile (INH, RIF, Other) Period of infectiousness Diagnosis	Site of disease Symptoms Date of symptom onset Chest x-ray results Sputum/culture status, specimen site, collection date Smear/culture conversion, dates Drug resistance profile TB medications, start/stop date Period of infectiousness Previous history of TB/TB rx
Settings in which transmission may have occurred		Living situation (# family members and roommates) Employment (y/n), where employed name of employer, address School (y/n), name of school, address Social/recreational activities (y/n), name/address Congregate setting (y/n), type of setting, name/address

B. Contact Data Elements

Recommendation Area	1998 CDHS/CTCA Joint Guidelines	2005 NTCA/CDC National Guidelines
Identifiers / Demographics	Name DOB and age Home address, phone #, other phone #s Sex Race Relationship to index case	Name and aliases DOB Home address, phone # Sex Race, ethnicity Relationship to index case Country of birth SSN
General interview details	Staff name	Investigator name Date identified as a contact Name of person who identified the contact, if different from index case Interview date Primary language, preferred language Speaks English (y/n) Translator used (y/n), (professional or family/friend?) If child, adult contacts to child Work/school info, name/address
Prioritization information	Contact type (close, casual, non-contact, hi-risk)	Size of space Ventilation of site Frequency, duration, and time frame of interactions Medical/population risk factors (as defined by ARPE-TT)
Evaluation	Date of last exposure Prior (+) TST done (y/n) and date Initial TST date read, result (mm), converter (y/n) Retest required (y/n) Follow-up TST date read, result (mm), converter (y/n) TB class (initial) CXR date and result TB class (final)	Date contact broken Prior TB (y/n), provide documentation if yes Prior LTBI (y/n), provide documentation if yes Received BCG vaccination (y/n), date Symptoms reviewed (y/n) Has symptoms (y/n), type(s) of symptoms, onset date Initial/follow-up TST results (in mm and positive/negative) Initial/follow-up TST date placed and read Reasons TST not done CXR results, dates Reasons CXR was not done Bacteriologic test results, dates Reasons bacteriologic tests not done Final TB class, date
Treatment for LTBI	Rx start date Meds (INH, INH+RIF, RIF, Other) Rx facility Disposition (i.e., final outcome of CI) and date: ▪ PT not medically indicated ▪ Completed full-course PT	LTBI treatment offered (y/n) Reasons why LTBI treatment not offered LTBI treatment started (y/n) Start date(s) Reasons why LTBI treatment not started Treatment regimen(s), dose, frequency, duration (include interruptions

	▪ Completed window PT, full course PT not indicated ▪ Stopped PT, adverse reaction ▪ Refused interview ▪ Refused TST ▪ Refused CXR ▪ Refused PT or refused completion of PT ▪ Moved ▪ Lost ▪ Died ▪ New TB case	and/or changes in regimen and dates) Specify treatment adverse events Treatment Stop date(s) DOT (y/n)? Treatment outcome (consistent with ARPE, expand if necessary) ▪ Completed treatment ▪ Death ▪ Moved (f/u unknown) ▪ Active TB developed ▪ Adverse effect of medicine ▪ Contact chose to stop ▪ Lost to f/u ▪ Provider decision ▪ Still on treatment (Calif. ARPE) Provider type (public, private, both, unknown)

1 Contact Roster from *California DHS and CTCA Joint Guidelines for TB Treatment and Control in California*
2 Table 1: Data to be Collected on the Presenting Patient and Table 2: Data to be Collected on Individual Contacts from *NTCA and CDC Guidelines for the Investigation of Contacts to Infectious Tuberculosis Cases (DRAFT)*

CONTACT DATA VARIABLES	
1. Case manager's name	Name of the case manager assigned to the index case or suspected case
2. Investigator's name	Name of person performing the investigation if different from the case manager assigned to the index case (i.e. worksite or school investigations)
3. Reason for investigation	**Contact:** Individual is being screened because s/he has been identified as a contact with a case of pulmonary, laryngeal, or pleural TB. Check **Administrative no risk**, if the individual was screened despite not being considered a contact to a TB case, e.g., persons screened in a household, who are not considered by the PH Investigator to have been exposed to the index case. **Source case:** Individual is being screened because s/he has been in contact with a TST reactor under 6 years of age, a TST converter, or an extra-pulmonary TB case under 18 years of age **Congregate:** Individual is being screened because s/he has been identified as a contact to a sputum smear positive TB case. The contact occurred in the setting of a worksite, school or other congregate setting. Check **administrative no risk**, if the individual was screened despite not being considered a contact to a TB case, e.g. persons screened during a worksite investigation, at the request of an employer, who are not considered, by the PH Investigator to have been exposed to the index case.
4. Date listed	Date listed as a contact to the index case
5. How and/or why the contact was listed?	Named by case, self-identified, cluster investigation, other
6. Was contact interviewed?	Was the investigator able to interview contact?
7. Date(s) the contact was interviewed	Date(s) the contact was interviewed (give space for at least 4 possible entries)
8. Contact's name	Last and first name of the contact
9. Aliases	Other names used by the contact
10. Guardian information	Information about guardian (address, city, state, phone number), if the contact is a minor or dependant
11. Social security number	Contact's social security number, if available
12. DOB	Contact's date of birth
13. Age at initial investigation	The age of the contact at initiation of investigation. Indicate whether the age being reported is in months or years.
14. Locating information	Address reported by the contact as his/her primary residence (Street/Apt #, City, State, Zip)
15. Home phone number	Home phone number reported by the contact
16. Pager/Mobile phone number	Pager or mobile phone reported by the contact
17. Sex	Contact's gender: Male, female, unknown
18. Race/Ethnicity	Race/ethnicity as reported by the contact: White, Black, Hispanic, Asian, Native Hawaiian/Pacific Islander, American American/native Alaskan

19. Country of birth	The country in which the contact was born
20. Date arrived into the U.S.	If foreign-born, the day, month, and year the contact first arrived in the U.S.
21. Country of residence prior to entry into U.S.	If other than the country of birth, enter the name of the country in which the contact resided prior to coming to the U.S.
22. Date contact broken with index case	Date after which either 1) the contact had no further contact with the index case OR 2) the index case was documented to be non-infectious (see end of infectious period)
23. Primary Language	Contact's primary language
24. Preferred language	What is the preferred language of the patient?
25. Methods of translation/interpretation	What method of translation was used to interview the patient? (E.g., interviewer, family member, non-family member, video/phone, NA, other)
26. Relationship to case	Relationship of contact to the index case, e.g. husband, friend, coworker, housemate, etc.
27. Social affiliations	Where does the contact spend time (school, work, church, clubs, activities)?
28. Employment	Specify whether the contact employed, unemployed, a student, retired?
29. Household/ Out of Household	Does the contact share a residence with the index case? Yes, no, unknown
30a. Environmental exposure: Size of area of exposure	The smallest area in which the contact was exposed to the index case throughout the period of infectiousness: Size of a car, size of a bedroom, size of a house, size larger than a house
30b. Environmental exposure: Ventilation of area of exposure	The area with the least ventilation in which the contact was exposed to the index case: Closed window, air conditioning, open window, completely open to the outside
30c. Environmental exposure: Cumulative hours of exposure	Enter the approximate number of hours the client was in contact with the index case throughout the period of infectiousness. This is found by determining (1) the **frequency of exposure**, (2) **duration of exposure**, and (3) **time frame of exposure.**
30c1. Environmental exposure: Frequency of exposure	The approximate number of times the client had contact with the index case or suspect during the infectious period. This can be reported in days, weeks, or months.
30c2. Environmental exposure: Duration of exposure	The approximate amount of time during each incidence of exposure with the case or suspect during the infectious period. This can be reported in minutes or hours.
30c3. Environmental exposure: Time frame of exposure	The period of time over which the client had exposure incidences with the infectious case or suspect. Determine the approximate date of first contact and last contact to the infectious case. This can be reported in days, weeks, or months.
31. Prior LTBI or TB disease?	Did the contact have a prior LTBI or TB disease? Yes, prior LTBI; Yes, prior TB disease, no, unknown
32. Year of prior LTBI or TB disease diagnosis	Year the prior LTBI or TB disease was diagnosed
33a. Documented prior TST?	Does the patient have a documented prior TST (previous to the investigation) Yes, no, unknown
33b. Date of prior TST done	The date of prior LTBI / prior TST was read

33c. Results of prior TST	Result in mm
34a. Prior documented Quantiferon (QFT) done?	Was a prior QFT test done? Yes, no, unknown
34b. Date the prior QFT was done	Date the prior QFT was done
34c. Result of the prior QFT	Positive, negative, indeterminate, unknown
35a. Documented completion of treatment for prior LTBI	Was treatment for prior LTBI completed? Yes, no, unknown
35b. Medication(s) for prior LTBI treatment	List the medications for prior LTBI treatment: INH, RIF, other drugs
35c. Date(s) the prior LTBI treatment started	Date treatment started for each listed medication
35d. Date(s) the prior LTBI treatment ended	Date treatment ended for each listed medication
35e. Where was the contact treated for prior LTBI	Country of birth, or U.S. state
36. Received BCG vaccination	Did the patient receive a BCG vaccine? Record the date s/he received the vaccine.
37. BCG vaccination date	Date BCG vaccinated
38. Medical Risks	Check all conditions reported by the contact: Immunosuppressive therapy; Diabetes (specify insulin); More than 10% below ideal weight; documented TST converter; Excessive alcohol use; Non-injecting drug use; abnormal CXR, consistent with old TB; history of prior TB disease; cancer (specify site); dialysis/renal failure; gastrectomy/intestinal bypass; silicosis; specify other; No medical risk noted
39. Population Risks	Check all conditions reported by the contact: Homeless shelter resident; Homeless not residing in shelter; Marginally housed; Long-term care facility resident; Long-term care facility employee; Child exposed to high risk adult; Foreign-born in US for < 5 years; Prison/Jail inmate; Migratory agricultural worker; Health care employee; Prison/Jail employee; Homeless shelter employee; Specify other; No population risk noted
40. Does client have HIV risk factors?	Check all conditions reported by the contact: Injection drug use (IDU), blood transfusion between 1980-1985, hemophilia**,** unprotected sexual intercourse with infected or high-risk partner(s) and/or with multiple partners, children of mothers infected or at risk
41a. HIV infection status	HIV infection status, if known: Positive, negative, not tested, unknown
41b. Date of HIV test	Date contact was tested for HIV infection
42. Were HIV services and materials offered?	Did the contact receive HIV services and/or materials?
43. Highest risk contact	A contact (either close or not close) is highest risk if s/he is at high-risk of progression from TB infection to TB disease and/or is likely to suffer increased morbidity or mortality from TB disease. A high-risk contact has one or more of the following characteristics: (1) under age 5; (2) infected with HIV, or at risk for HIV infection; (3) Immunosuppressed
44. Health care provider	Who provided health care management of evaluation for TB infection/disease? (public health department, private MD, both, other)?
45. Health insurance	Does the contact have medical insurance? Yes, no, unknown
46. Were TB symptoms reviewed?	Was a review for TB symptoms performed? Yes, no, unknown

47. Current TB Symptoms	TB symptoms reported by the contact
48. Current TST reaction measurement	Initial TST reaction measurement in millimeters
49. Date of current TST was read	Date the initial TST was read
50. Reagent	Reagent
51. Lot numbers	Lot number
52. Re-test required?	Was a follow-up TST required
53. Re-test date	Date of the follow-up TST
54. Follow-up TST reaction measurement	Follow-up TST reaction measurement in millimeters
55. Date f/u TST was read	Date the follow-up TST was read
56. Initial Quantiferon-TB (QFT) test result	Interpretation of the QFT test: Positive, negative, indeterminate, unknown
57. Date of initial QFT test	Date of initial QFT test
58. Follow-up QFT test result	Interpretation of the QFT test: Positive, negative, indeterminate, unknown
59. Date of follow-up QFT test result	Date of follow-up QFT test
60. Second follow-up QFT test result	Interpretation of the QFT test: Positive, negative, indeterminate, unknown
61. Date of second follow-up QFT test result	Date of second follow-up QFT test
62. Chest x-ray (CXR) performed?	Was a CXR performed? Yes, no, unknown
63. Reason(s) why CXR not performed	E.g., Not Applicable, Client refused, CXR done in the past 3 months
64. Chest x-ray results	Chest x-ray results of the contact: Normal (CXR has no abnormalities consistent with TB); Abnormal, consistent with TB; Abnormal, not consistent with TB; Not done
65. Cavitary CXR?	If CXR result(s) was abnormal, did the patient have a cavitary lesion on the chest radiograph? Yes, no, unknown
66. Date(s) of chest x-ray	The date(s) the CXR was taken
67. Bacteriology performed?	Was bacteriology performed?
68. Reason(s) why bacteriology not performed	E.g., Not Applicable, Client refused
69. Bacteriology results: Sputum smear results	Positive (the smear of any tissue or fluid was positive for acid-fast organisms), Negative (the smear of any tissue of fluid was negative for acid-fast organisms), Not done, Unknown
70. Bacteriology results: Sputum culture results	Positive (the culture of any tissue or fluid was positive for *M. tuberculosis* organisms), Negative (the culture of any tissue of fluid was negative for *M. tuberculosis* organisms), Not done, Unknown
71. Date(s) of bacteriology results	The date specimen(s) collected

72. Was evaluation completed?	Evaluations completed when results of TSTs, CXRs (if indicated), and cultures (if indicated) are final, and a decision has been made regarding whether or not treatment for LTBI will be offered
73. Date evaluation was completed	The date evaluation was completed
74. Reason(s) why evaluation was not completed	E.g. Refused interview, Refused sputum collection, Investigation discontinued by TB Controller, Refused TST, Refused CXR, Moved, Lost to Follow Up (F/U), Other
75. Follow-up discontinued index case/suspect determined not to be active TB	Follow-up with the contact was discontinued because it was determined that index case/suspect was not a TB case (i.e. non-TB, TB 4, TB 2)
76. Date CI was discontinued	Date of discontinuation of follow-up
77. Was treatment for LTBI/Window Prophylaxis recommended?	Was treatment for LTB/Window Prophylaxis recommended by the health care provider?
78. Reason(s) why treatment for LTBI/Window Prophylaxis was not recommended	E.g., Prior adequate Rx for LTBI, Prior adequate Rx for TB disease, PMD refused, Medically not indicated, Prior history of adverse reaction, pregnant (specify defer until date)
79. Was treatment for LTBI/Window Prophylaxis initiated?	Was treatment for LTB/Window Prophylaxis initiated by the health care provider?
80. Reason(s) why treatment for LTBI/Window Prophylaxis was not initiated	E.g., Patient refused, died, lost, moved, records referred, other (specify)
81. Treatment start date(s)	Date patient first ingested medication as documented in a medical record, such as hospital or clinic or directly observed therapy record
82. Treatment end date(s)	Date patient last ingested medication as documented in a medical record, such as hospital or clinic or directly observed therapy record
83. TB Medications	Indicate the name of the drug prescribed: INH, RIF
84a. Treatment dosing schedule: Dosage	Drug dosage (e.g. 125mg)
84b. Treatment dosing schedule: Frequency	The frequency with which the drug is given
84c. Treatment dosing schedule: Duration	Length of the therapy originally prescribed for each drug in months
85. Directly observed therapy	Indicate whether treatment was given by Directly Observed Therapy
86. Directly observed therapy site	Indicate where DOT was administered: Clinic, home, school, other site
87. Number of doses taken	Specify the total number of doses taken based on regular assessments for adherence.
88. Final TB classification	TB classification: TB 1, TB 2, TB 3, TB 4

89. Outcome of treatment	**LTBI treatment complete**: (1) the prescribing provider, believing that an adequate regimen has been received, discontinues treatment, and (2) the contact has taken at least 80% of the prescribed doses in a therapy course, within a period of 150% of the selected duration of therapy. The determination about whether the definition is met is made from the best available information, which is generally the provider's records and the contact's statements. **Final TST Negative, window prophylaxis ended:** if the contact discontinued therapy because the final TST is negative (i.e. discontinuing window prophylaxis) **LTBI treatment was not completed**
90. Reason(s) why treatment was not completed	**Contact chose to stop**: contact decided to stop taking medicine before completing an adequate regimen, and a health care provider has not determined that the medicine should be discontinued for a medical reason. If the contact chose to stop because of adverse effects of the medications, it should not be marked in this field but in the field **Adverse Reaction-contact chose to stop**. **Adverse Reaction-contact chose to stop**: contact stopped taking the medicine because of an adverse effect but a provider did not recommend the discontinuation. **MD chose to stop**: Health care provider advises contact to stop treatment for latent TB infection for any reason other than adverse reactions. Indicate the reason in the space provided. Remember to record name of PMD under Nursing Notes. **Adverse Reaction-MD advised to stop:** contact was advised to stop, by a medical provider because of adverse effects (including drug-drug or drug-food interactions) -requires confirmation from the client's provider. Remember to record name of PMD under Nursing Notes. **Contact Moved (follow-up unknown)**: contact moved out of the jurisdiction prior to completion of therapy and final result of therapy could not be determined. **Lost:** contact was lost to follow up before completion of therapy **Died**: contact died before completion of treatment (Note: Because of the seriousness of this outcome and the unreliability of anecdotal reports, a verification of any deaths is helpful for accuracy in reporting.) **Active TB developed**: While on treatment for LTBI, contact was determined to have active TB disease. **Other:** use the space provided to indicate any other reason that treatment stopped **Still on treatment**

CONTACT INFORMATION FORM

INDEX CASE/SUSPECT INFORMATION

(1) Last name☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ First☐☐☐☐☐☐☐☐☐☐☐☐☐☐ MI☐

(2) DOB ☐☐/☐☐/☐☐☐☐

(3) Period of infectiousness from ☐☐/☐☐/☐☐☐☐ to ☐☐/☐☐/☐☐☐☐

(4) Case manager's name:_____

(5) Investigator's name (if different from case manager): _____

REASON FOR INVESTIGATION

(6) ☐Contact (☐ administrative no risk) ☐ Source Case ☐Congregate (☐ administrative no risk)

CONTACT INFORMATION

(7) Last name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ First name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐

(8) Address Street ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Apt #☐☐☐☐☐☐☐☐☐☐

City ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ State☐☐ Zip☐☐☐☐☐

(9) Phone Home ☐☐☐-☐☐☐-☐☐☐☐ Pager/mobile☐☐☐-☐☐☐-☐☐☐☐

(10) DOB ☐☐/☐☐/☐☐☐☐ (11) Age at initial investigation ☐☐months / years (circle one)

(12) Gender ☐Male ☐Female (13) Social security # ☐☐☐-☐☐-☐☐☐☐

EXPOSURE INFORMATION

(14) Date first identified by index case as a contact ☐☐/☐☐/☐☐☐☐

(15) Date contact broken with index case ☐☐/☐☐/☐☐☐☐

(16) Relationship to case ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

(17) Contact is ☐Household ☐Out of household

(18) Was the contact interviewed? ☐ Yes, if yes date☐☐/☐☐/☐☐☐☐ ☐ No

(19) Cumulative hours of exposure* ☐☐☐hours

- Frequency of exposure _____ times per day / week / month (circle one)
- Duration of exposure _____ minutes / hours (circle one) of exposure each time
- Time frame of exposure _____ days / weeks / months (circle one) during the infectious period

(20) Area of exposure* ☐ Size of a car ☐Size of a bedroom ☐Size of a house ☐Larger than a house

(21) Ventilation* ☐Closed window ☐Air conditioning ☐Open window ☐Completely open to outside

DEMOGRAPHIC / EMPLOYMENT INFORMATION

(22) Ethnicity ☐ Hispanic/Latino ☐Non-Hispanic/Non-Latino

(23) Race ☐American Indian or Alaskan Native ☐Asian, specify☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

☐Black or African American ☐Native Hawaiian/ Other Pacific Islander, specify☐☐☐☐☐☐☐☐

☐White

(24) Country of birth ☐ U.S.A. ☐ Non-U.S., specify☐☐☐☐☐☐☐☐☐☐

(25) Date arrived into U.S. ☐☐/☐☐/☐☐☐☐

(26) Country of residence/ refugee camp prior to entry into U.S. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

(27) Primary language ☐☐☐☐☐☐☐☐☐☐☐☐☐☐

(28) Interpreter used ☐ No ☐ Yes, Name ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

(29) Employment ☐ No, why ☐Student ☐Retired ☐Unemployed, last date of employment ☐☐/☐☐/☐☐☐☐

☐ Yes, Employed at ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

(30) Health insurance ☐ No ☐ Yes, Health Insurance Plan☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

*Calculate the client's exposure to the TB case/suspect only during the infectious period

CONTACT INFORMATION: Last Name_____ First Intial☐ DOB☐☐/☐☐/☐☐☐☐

RISK FACTORS (Check all that apply)

MEDICAL RISK

(31) ☐Yes, specify ☐ Immunosuppressive therapy ☐ Diabetes (❑ Insulin) ☐ >10% below ideal weight
☐ TST converter(documented) ☐ Excessive alcohol use ☐ Non-injecting drug use
☐ Abnormal CXR, c/w old TB ☐ History of prior TB disease ☐Cancer (Site_____)
☐ Dialysis/renal failure ☐ Gastrectomy/intestinal bypass ☐Silicosis
☐ Other_____

☐ NO MEDICAL RISK FOR TB NOTED

POPULATION RISK (within past year of Dx)

(32) ☐Yes, specify ☐Homeless shelter resident ☐Child exposed to high risk adult ☐Migratory agricultural worker
☐Health care employee ☐Long-term care facility resident ☐Homeless not residing in shelter
☐Foreign-born in U.S.<5 years ☐Marginally housed ☐Homeless shelter employee
☐Long-term care facility employee ☐Prison/jail inmate ☐Prison/jail employee
☐Juvenile hall inmate ☐Other_____

☐NO POPULATION RISK FOR TB NOTED

HIV RISK

(33) ☐Yes, specify ☐ Child of mother infected or at risk ☐Hemophilia
☐ Unprotected sexual contact and/or multiple sexual partners ☐Injecting drug use
☐Blood transfusion between 1980-1985 ☐Men having sex with men

☐NO HIV RISK FACTORS REPORTED

(34) Were HIV services and materials offered? ☐ Yes ☐ No

(35) Highest risk (< 6 years of age, at risk for HIV infection and/ or immunocompromised) ☐ Yes ☐ No

CURRENT TB SYMPTOMS (Check all that apply)

(36) TB symptoms reviewed? ☐ Yes, date☐☐/☐☐/☐☐☐☐ ☐No

(37) Symptoms ☐ Yes, type of symptom(s) ☐Cough ☐Hemoptysis ☐Night sweats ☐Weight loss
☐Fever ☐Chills ☐Loss of appetite ☐Persistent fatigue/malaise
☐Hoarseness ☐Chest pain ☐Other_____

☐NO TB SYMPTOMS REPORTED

MANTOUX TUBERCULIN SKIN TEST (TST)

(If no documentation of prior positive TST is available, a TST must be done)

(38) Documented prior TST ☐ No
☐ Yes, date☐☐/☐☐/☐☐☐☐ Result ☐☐ (mm) ☐ Positive ☐Negative

(39) Documented prior completion of LTBI treatment? ☐No ☐ Yes, date☐☐/☐☐/☐☐☐☐

(40) Received BCG vaccination? ☐No ☐ Yes, date☐☐/☐☐/☐☐☐☐

(41) Documented history of TB disease? ☐No ☐ Yes, date☐☐/☐☐/☐☐☐☐

(42) Current TST Information (related to current contact investigation)

Was a TST done?

☐No, specify ☐Refused ☐Prior Documented +TST ☐Other_____

☐Yes	Date TST Given	Date TST Read	Result (mm)	Retest Required	Retest Date
1st TST	☐☐/☐☐/☐☐☐☐	☐☐/☐☐/☐☐☐☐	☐☐	☐Yes ☐No	☐☐/☐☐/☐☐☐☐
2nd TST	☐☐/☐☐/☐☐☐☐	☐☐/☐☐/☐☐☐☐	☐☐	☐Yes ☐No	☐☐/☐☐/☐☐☐☐
3rd TST	☐☐/☐☐/☐☐☐☐	☐☐/☐☐/☐☐☐☐	☐☐	☐Yes ☐No	☐☐/☐☐/☐☐☐☐

CONTACT INFORMATION: Last Name_____ First Intial☐ DOB☐☐/☐☐/☐☐☐☐

CHEST X-RAY
(Record only CXR information relevant to current contact investigation)

(43) CXR Performed?

☐No, specify ☐ Not Applicable ☐Client refused ☐CXR done within 3 months, record date and result under 1st CXR

☐Yes

	Chest X-Ray Date	Chest X-Ray Result		
1st CXR	☐☐/☐☐/☐☐☐☐	☐Normal	☐Abnormal, consistent w/ TB	☐Abnormal, not consistent w/ TB
2nd CXR	☐☐/☐☐/☐☐☐☐	☐Normal	☐Abnormal, consistent w/ TB	☐Abnormal, not consistent w/ TB

BACTERIOLOGY
(Record only bacteriology information relevant to current contact investigation)

(44) Bacteriology Performed?

☐No, specify ☐Not Applicable ☐Client refused

☐Yes

	Date Specimen Collected	Specimen Type		Smear Result		Culture Result	
1st Specimen	☐☐/☐☐/☐☐☐☐	☐Sputum	☐Other	☐Positive	☐Negative	☐Positive	☐Negative
2nd Specimen	☐☐/☐☐/☐☐☐☐	☐Sputum	☐Other	☐Positive	☐Negative	☐Positive	☐Negative
3rd Specimen	☐☐/☐☐/☐☐☐☐	☐Sputum	☐Other	☐Positive	☐Negative	☐Positive	☐Negative

COMPLETION OF EVALUATION
(Evaluation is complete when results of TST's, CXR's and cultures (if indicated) are final, and a decision has been made regarding whether or not treatment for LTBI will be offered.)

(45) Evaluation completed?

☐Yes, Date completed ☐☐/☐☐/☐☐☐☐

Indicate TB class: ☐(0) No TB exposure, not infected ☐(1) TB exposure, not infected
☐(2) LTBI, no disease ☐(3) Active TB disease, current ☐(4) Old TB disease

☐No, why did not complete evaluation?

☐ Refused interview ☐Refused sputum collection ☐Investigation d/c by TB Controller, date☐☐/☐☐/☐☐☐☐
☐Refused TST ☐Refused CXR ☐Moved ☐Lost to F/U ☐Other_____

(46) ☐Contact Investigation discontinued index case/suspect determined not to be active TB, date ☐☐/☐☐/☐☐☐☐

(47) Evaluation provided by: ☐Health Department ☐Private Medical Provider**

TREATMENT FOR LATENT TB INFECTION (LTBI) / WINDOW PROPHYLAXIS

(48) Treatment for LTBI / Window Prophylaxis recommended?

☐Yes, Medical management to be provided by: ☐ Health Department ☐ Private Medical Provider**

☐No, why? ☐Prior adequate Rx for LTBI ☐Prior adequate Rx for TB Disease ☐PMD** refused
☐ Medically not indicated ☐Prior Hx of adverse reaction
☐Pregnant (Defer until ☐☐/☐☐/☐☐☐☐)

LATENT TB INFECTION (LTBI) / WINDOW PROPHYLAXIS DRUG REGIMEN

(49) Was treatment for LTBI/ Window Prophylaxis initiated?

☐No, why? ☐ Patient refused ☐Died ☐Lost ☐Moved, records referred ☐Other:_____

☐Yes, record treatment information below

(50) Drug	Dosage	Frequency	Duration	Start Date	End Date
☐INH ☐RIF	☐☐☐☐ mg	☐daily ☐bi-weekly	☐☐months	☐☐/☐☐/☐☐☐☐	☐☐/☐☐/☐☐☐☐
☐INH ☐RIF	☐☐☐☐ mg	☐daily ☐bi-weekly	☐☐months	☐☐/☐☐/☐☐☐☐	☐☐/☐☐/☐☐☐☐
☐INH ☐RIF	☐☐☐☐ mg	☐daily ☐bi-weekly	☐☐months	☐☐/☐☐/☐☐☐☐	☐☐/☐☐/☐☐☐☐

**Record the name of the PMD under Nursing Notes at the end of the form

CONTACT INFORMATION: Last Name_____ First Intial☐ DOB☐☐/☐☐/☐☐☐☐

CLOSURE OF TREATMENT FOR LATENT TB INFECTION (LTBI) / WINDOW PROPHYLAXIS

(51) Directly observed therapy (DOT):

☐No ☐Yes, DOT site: ☐Clinic ☐Home ☐School ☐Other:_____

(52) Was Treatment for LTBI / Window Prophylaxis completed?

☐Yes, Reason ☐LTBI treatment complete ☐Final TST negative, window prophylaxis ended

☐No, Reason ☐Contact chose to stop ☐Adverse Reaction- contact chose to stop ☐MD chose to stop

☐Adverse Reaction- MD advised to stop ☐Contact moved (f/u unknown) ☐Lost ☐Died

☐Active TB developed ☐Other_____

(53) Number of doses taken ☐☐☐☐

NURSING NOTES

(54) TB Clinic/Other Health Care Provider

**MD Name ☐☐

MD Phone # ☐☐☐-☐☐☐-☐☐☐☐

Letters/Consults to MD

Index Case/Suspect Data Variables

Items not on the Case Contact Roster form in BLUE; Items not in Table 4 of CDC/NTCA CI Guidelines in RED			
1	Case manager	27	Cavitary CXR
2	Index case/suspect name	28a	TB meds
3	Aliases	28b	TB meds start date(s)
4	Guardian information (for minors/dependants)	28c	TB meds end date(s)
5	DOB		Bacteriologic results:
6	Social security number	29	Sputum smear result(s)
7	Current locating information	30	Sputum culture result(s)
8	Emergency contacts	31a	Other culture results
9	Residences during infectious period if unstably housed	31b	Other culture site
10	State TB registry (RVCT) number	32	Drug susceptibility results
11	Local case number	33a	Previous history of TB disease
12	Sex	33b	Year previous TB disease diagnosed
13	Race/Ethnicity	34a	Previous history of TB treatment
14	Country of birth	34b	Locations of previous of TB treatment
15	Length of time in the U.S. (if foreign-born)	34c	Previous TB medications
16	Primary language	34d	Duration of previous TB treatment
17	Preferred language	35	Previous history of exposure to TB disease
18	Language used to conduct interview	36	Infectious period start date
19	Methods of translation/interpretation	37	Infectious period end date
20	Settings of potential TB transmission:	38	HIV infection status
20a	Living situation	39	HARS number
20b	Employment/school	40	Date case/suspect was identified
20c	Social/recreation activities	41	Date of initial interview
20d	Congregate settings (e.g., jail, homeless shelter)	42	Date(s) of f/u interview(s)
20e	Substance abuse with social implications	43	Case/suspect out-of-jurisdiction
21	Health care provider for TB	44	Name of jurisdiction if case/suspect is out of jurisdiction
21a	Public health	45	Initial TB class: TB 3, 5
21b	Private	46	Final TB class: TB 1, 2, 3, 4
21c	Both	47	CI was discontinued:
21d	Other	47a	TB controller decision
22	Anatomic site of disease	47b	Index/suspect determined not to have TB
23	Extra-pulmonary site	48	Date verified as a case (count date)
24	Symptoms	49	Any out-of-county contacts/ Name of county
25	Symptom start date(s)	50	Name of jurisdiction(s) if contact is out of county
26	CXR results		

Contact Data Variables

Items not on the Contact Information Form in BLUE; Items not in Table 5 of CDC/NTCA CI Guidelines in RED

1	Contact manager's name	48	Current TST reaction measurement
2	Investigator's name	49	Date of current TST read
3	Reason for investigation	50	Reagent
4	Date listed	51	Lot numbers
5	How/why a contact was listed	52	Re-test required?
6	Was the contact interviewed?	53	Re-test date
7	Date of interviews	54	F/U TST reaction measurement
8	Contact's name	55	Date of TST read
9	Aliases	56	Initial QFT test result
10	Guardian information (for minors and dependants)	57	Date of initial QFT result
11	Social security number	58	Follow-up QFT test result
12	DOB	59	Date of follow-up QFT result
13	Age at initial investigation	60	Second follow-up QFT test result
14	Locating information	61	Date of second follow-up QFT result
15	Home phone number	62	CXR performed?
16	Pager/mobile phone numbers	63	If CXR not performed, specify why not
17	Sex	64	CXR results
18	Race/Ethnicity	65	Cavitary CXR
19	Country of birth	66	Date of CXR
20	Date of arrival into the U.S. (if foreign-born)	67	Bacteriology performed?
21	Country of residence prior entry into U.S.	68	If Bacteriology not performed, specify why not
22	Date contact broken with the index case	69	Sputum smear results
23	Primary language	70	Sputum culture results
24	Preferred language	71	Bacteriologic dates
25	Methods of translation/interpretation	72	Evaluation completed?
26	Relationship or connection to the index patient	73	Date evaluation was completed
27	Social affiliations (e.g., work, school, church, activities)	74	Reason(s) why evaluation was not completed
28	Employment	75	CI discontinued, index case/suspect not active TB
29	Household/out-of-household	76	Date the CI was discontinued
30	Environmental info about exposure settings:	77	Treatment for LTBI/window prophylaxis recommended?
30a	Size of area of exposure	78	Reasons why treatment was not recommended
30b	Ventilation of area of exposure	79	Treatment for LTBI/window prophylaxis initiated?
30c	Cumulative hours of exposure	80	Reason(s) why treatment was not initiated
	• Frequency, duration, time frame of interaction	81	Start date of treatment
31	Prior LTBI/TB disease	82	End date of treatment
32	Year of prior LTBI/TB disease diagnosis	83	Treatment medications
33a	Documented prior TST done	84	Treatment dosing schedule:
33b	Date of prior TST	84a	Dosage
33c	Results of prior TST	84b	Frequency
34a	Prior documented Quantiferon done	84c	Duration
34b	Date prior documented Quantiferon done	85	Methods of supervising treatment (e.g., DOT)
34c	Result of prior documented Quantiferon	86	DOT site
35a	Documented completion of prior LTBI treatment	87	Number of doses taken
35b	Medication(s) for prior LTBI treatment	88	Final classification for LTBI or disease
35c	Date(s) prior LTBI treatment started	89	Outcome of treatment:
35d	Date(s) prior LTBI treatment ended	89a	Completed treatment for LTBI
35e	Location of prior LTBI treatment	89b	Final TST (-), window prophylaxis ended
36	BCG vaccination?	89c	Treatment not completed for LTBI
37	BCG vaccination date	90	Reason why treatment was not completed:
38	Medical risk factors for progression to disease	90a	Death
39	Population risk factors for prevalent Mtb infection	90b	Contact moved (f/u unknown)
40	HIV risk factors	90c	Active TB developed
41a	HIV infection status	90d	Adverse effect of medicine, MD advised to stop
41b	Date of HIV test	90e	Adverse effect of medicine, contact chose to stop
Continued next page		***Continued next page***	
42	HIV services/materials offered	90f	Contact chose to stop
43	Highest risk contact?	90g	Contact is lost to f/u

44	Health-care provider (PH, PMD, Both, Other)	90h	Provider decision
45	Has health insurance?	90i	Other
46	TB symptoms reviewed?	90j	Still on treatment
47	Current TB symptoms		

Planning & Implementing a Contact Investigation Improvement Project

Guide to Improving Contact Investigations

1

Planning & Implementing a Contact Investigation Improvement Project

Guide to Improving Contact Investigations

California Tuberculosis Control Branch in collaboration with Santa Clara County

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Planning & Implementing a Contact Investigation Improvement Project

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Planning & Implementing a Contact Investigation Improvement Project

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Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Preface

Investigating and treating contacts of TB cases is the second highest priority for TB control programs. The purpose of contact investigations (CIs) is to prevent further transmission by identifying and treating secondary cases, and to prevent future morbidity and mortality by identifying and treating those with latent TB infection (LTBI). Since recently infected individuals have a 100-fold greater risk of developing TB disease than the general population, deficiencies in eliciting contacts, and fully evaluating and treating them pose a major barrier to TB prevention and control. Improving CIs is especially important in CA which contributes 21% of TB cases to the national caseload, and a correspondingly high burden of contacts.

Contact investigations (CIs) are complex and labor intensive. Studies have shown that even in the “best run” programs serious deficiencies exist. Assessing the strengths and weaknesses of your CI activities will allow insight into ways to improve the efficiency and effectiveness of CIs.

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Intended Audience

TBCB program liaisons,

TB control program managers,

TB controllers

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Introduction

Many local health departments (LHDs) in California face challenges in completely eliciting, evaluating, and treating contacts to tuberculosis (TB) cases. Few systematically collect and analyze contact investigation (CI) data to fully evaluate these activities.

In fall of 2001, the Tuberculosis (TB) Prevention and Control Program of Santa Clara County (SCC) in collaboration with the California Tuberculosis Control Branch (CaTBCB) initiated the Contact Investigation Improvement Project (CIIP). This project was established to assess and improve CIs through the use of systematically collected and routinely analyzed CI information. The implementation of new data collection and analysis tools coupled with data interpretation and evaluation, and targeted training resulted in improved CI outcomes.

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Maximizing Effectiveness of Contact Investigations

California is far from maximizing the number of cases prevented through CIs. Based on data from 1999-2000, LHDs in the state should identify and ensure the evaluation of 28,700 contacts per year. This massive workload should yield at least 200 new TB cases, or approximately 6 percent of the cases reported annually in California; however, data analysis suggests that CIs identified only 130 (65 percent) of the expected number of cases. The 70 cases (35 percent) that were not identified are likely to continue additional cycles of transmission because they will be detected later after they develop more advanced disease.

California is also far from maximizing the potential of CIs to prevent future cases by ensuring treatment. With completion of treatment for LTBI, we should be able to prevent at least 181 additional cases over the two years subsequent to contact identification. However, recent statewide data suggest that only 60 percent of contacts who start therapy complete it. Therefore, CIs fail to prevent at least 72 cases (over 2% of the state's cases) among contacts who are identified but do not complete treatment for LTBI. If all contacts were completely elicited, and all contacts for whom treatment was recommended started and completed treatment, it is likely that the benefits of CIs would be substantially greater.

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Manual Format

This manual is presented in five sections. Each section is dedicated to one aspect of implementing a contact investigation improvement project. The first section provides an introduction to the project. Sections two, three and four focus on the stages of the project implementation and on lessons learned. While finally, section five includes helpful tools for implementation.

- The sectional design facilitates organizing, implementing and distributing appropriate segments of the project by function
- Section 5 includes sample forms and letters, other correspondence, and formats used in planning and organizing the project.

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Abbreviations

Organizations

CDC	Centers for Disease Control & Prevention
CDHS	California Department of Health Services
CTCA	California Tuberculosis Controllers Association

Terms

AFB	acid-fast bacilli
BCG	Bacilus of Calmette-Guerin
CDI	Communicable Disease Investigator
CI	Contact Investigation
CIF	Contact Information Form
CCR	Case Contact Roster
CXR	Chest radiograph
TBCM	Tuberculosis Case Manager
HIV	Human Immunodeficiency Virus
IV	Intravenous
LTBI	Latent tuberculosis infection
mm	millimeters
TB	tuberculosis
TST	tuberculin skin test

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Definitions

Potentially Infectious refers to cases of pulmonary, laryngeal, or pleural TB regardless of smear status.

Noninfectious Pulmonary, only for purposes of epidemiological investigations and follow up, refers to all cases of TB except for pulmonary, laryngeal, and pleural TB which will be considered POTENTIALLY INFECTIOUS regardless of smear status.

TST Converter refers to persons with an increase of at least 10 mm of induration from < 10 mm to >= 10 mm within 24 months from a documented (written documentation required) negative to positive TST.

Contact refers to a person who has shared air with the index case.

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Definitions

Close contact: a person who has prolonged, frequent, or intense contact with an index case during the period of infectiousness. This also depends on physical proximity to the index case environment in which exposure occurs.

Examples of close contacts include, but are not limited to, persons who:

- carpool with the index case several days per week
- share the same house or room as the index case
- spend time with the index case frequently
- share air in small, enclosed spaces with little natural or mechanical ventilation.

Not close contact: a person who has less prolonged, intense, or frequent contact with the index case than close contacts.

Examples of casual contacts include, but are not limited to, persons who:

- visited the index case occasionally
- visited the index case weekly for a short time

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Definitions

High-risk contact refers to a contact (either close or casual) who is at high-risk of progression from TB infection to TB disease and/or is likely to suffer increased morbidity or mortality from TB disease. A high-risk[1] contact has one or more of the following characteristics:

- under age six (6)
- infected with HIV, or who is at risk for HIV infection

Since clinically active disease can occur very rapidly once infected, high-risk contacts must receive prompt medical evaluation.

Non-contact refers to a person who has probably not shared air with the index case but who requested inclusion in the contact investigation, i.e. a worried person who was probably not exposed. Examples include, but are not limited to, a person who:

- shared an elevator ride with the index case
- was exposed to the index case outdoors only.

Planning & Implementing a Contact Investigation Improvement Project

Section 1: Introduction

Definitions

Index case refers to a suspected or confirmed case of pulmonary, pleural, or laryngeal TB

Period of Infectiousness: the period during which the index case most likely transmitted TB to others

At Risk for HIV Infection: persons with history of behaviors or conditions associated with increased risk of HIV infection, unless the person is known to be HIV negative at least 6 months following the last possible HIV exposure or risk behavior.

Window Prophylaxis: The practice of providing preventive therapy to a high risk contact whose initial tuberculin skin test (TST) result is negative before the result of the follow-up TST is available. At the time of the follow-up TST, a decision about whether to continue preventive therapy is made.

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

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Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Background

A significant barrier to maximizing the effectiveness of CIs is the adequate collection and analysis of information to fully evaluate activities. Unless essential information is collected, managed, and analyzed, LHDs cannot accurately identify program deficits, determine appropriate interventions, and evaluate their efforts.

Since 1996, most programs have manually reviewed each contact record to compile aggregate data for CI reports required by CDC. Evaluation of CI activities in most LHDs, and the state is largely limited to information contained in these reports. Although the reports provide sufficient data for global performance reviews, they lack essential information to assess reasons for sub-optimal performance, including contact risk factors, timeliness of CI activities, and where contacts who do not complete evaluation default. Information at this level of detail, requires analysis of specific data elements and an electronic database to determine and evaluate appropriate interventions.

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Program Essentials

Key steps to program implementation:

1. Identify key stakeholders
2. Create a flowchart of how the current program is designed and functioning
3. Conduct a needs assessment: Include chart review, assessment of documentation, and adherence to reporting regulations
4. Establish program goals and objectives for contact investigations
5. Assess current program protocol for contact investigations

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Considerations for CI Improvement Implementation

- **Who are your stakeholders?**
- **What is your stakeholders level of investment and resources?**
- **When would the stakeholders like to implement the project locally?**
- **Where does responsibility lay for oversight of CI's?**

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Considerations for CI Improvement Implementation

LHJ Public Health Department (PHD)

1. **What is role of LHJ PHD regarding TB Prevention and Control?**
2. **How are LHJ PHD TB services structured?**

LHJ Demographics

- Population of county
- Reports of active TB cases per year
- County: urban vs. rural settings
- Case demographics: US vs. foreign-born

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Considerations for CI Improvement Implementation

LHJ TB Program Assessment

Formal: *ARPE*

TIP

local assessments

Informal: *Is transmission occurring, identified through TB outbreak investigations?*

staff feedback

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Considerations for CI Improvement Implementation

LHJ TB Prevention and Control

1. Describe LHJ TB Prevention and Control Program
2. Describe who staffs program and who performs CI activities
3. Describe role of program TB case management in contact investigations
4. Describe who is responsible for TB case management and contact investigations

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Considerations for CI Improvement Implementation

LHJ TB Clinic

1. Is there a TB Clinic within LHJ?
2. What percentage of cases are seen at clinic vs. PMD?
3. What is role of TB Clinic in TB case management and contact investigations**?**

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Baseline Assessment

A baseline assessment allows a program to measure its current performance. There are many different methods that can be used to perform a baseline assessment.

Examples of baseline assessments are listed below. Each method has certain advantages and disadvantages; therefore, selection of an appropriate approach is based on the services and resources within a program.

1. **Historical cohort data analysis**
   Measure process and outcome indicators
2. **Interview survey:**
   Assess operationalization of CI policies and procedures
3. **CI field observations:**
   Assess knowledge and skills

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Baseline Assessment

Activity 1. Retrospective cohort data analysis

Activity description:

Conduct a review of historical CI activities by analysis of data from a chosen cohort. Determine indicators of process and outcomes that will be measured.

Areas to assess:

Analyses will include, at a minimum, outcomes of CIs, outcomes for pediatric contacts and other high-risk contacts, use of directly observed therapy (DOT) for treatment of LTBI, outcomes by provider type, and outcomes by individual staff.

Potential Outcomes:

Data may suggest areas for improvement in CI, including: accurate documentation of contact risk status, dates associated with key CI steps, and treatment end reasons; as well as the prioritization of high-risk contacts.

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Baseline Assessment

Activity 2. Interview survey

Activity description:

Survey to assess TB case manager and supervisor's understanding of CI policies and procedures.

Areas to assess:

Demographic makeup of program (I.e., do we have access to language skills that fit our client population?); staff competency and performance; staff and program challenges; adherence to CI guidelines

Potential Outcomes:

Data may point to areas of knowledge that need to be reinforced through training on CI concepts, policies and procedures.

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Baseline Assessment

Activity 3. Field Observations

Activity description:

Evaluate the current practices that case managers use when conducting field interviews. Field observations allow the qualitative assessment of how CI policies and procedures are operationalized.

Areas to assess:

Process and skills related to conducting contact investigations

Potential Outcomes:

Strengths and challenges identified: e.g., increasing cultural competency skills, asking open-ended questions, addressing non-verbal indicators, asking sensitive questions

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Contact Investigation Tool Development

Identify and define core data elements to capture essential CI information. Elements should include but not be limited to: contact risk factors, employment status, country of origin, language, and variables to quantify the duration and extent of exposure, completion of each step in the evaluation process, documentation of treatment outcomes.

Incorporating this information onto contact investigation data collection forms improves ability to assess the success of CI's and identify gaps in process. The following tools are suggested for implementation of the contact investigation improvement project. Forms may be adapted to needs of individual programs.

1. **Case Contact Roster**
2. **Contact Information Form**
3. **Contact Investigation Database**

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Contact Investigation Tool Development

Tool 1. Case Contact Roster

1. A reference list of contacts related to a particular contact investigation
2. Summarizes status of each CI
3. Provides preliminary information to prioritize contacts
4. Provides ability to assess likelihood of transmission.
5. Provides ability to assess need to expand CI beyond standard close contact screening.
6. Allows monitoring of completion of evaluation and treatment

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Contact Investigation Tool Development

Tool 2. Contact Information Form

1. Comprehensive information related to a particular contact
2. Provides ability to prioritize individual contacts

Planning & Implementing a Contact Investigation Improvement Project

Section 2: Understanding your program

Contact Investigation Tool Development

Tool 3. Contact Investigation Database

1. Stores all CI data for analyses and evaluation
2. Generates queries (line lists) and reports:
   Quality control and Data Management
   ARPE
   CI performance evaluations

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Key aspects to implementation

Communication and coordination are the keys to establishing a program that will elicit and link high priority contacts to screening, evaluation and treatment services. A key component in improving CIs is to review and monitor CI data, and interpret the data and translate it into action steps. Staff job descriptions should include these responsibilities. Staff that may be assigned these roles include but are not limited to public health nurses, supervisors, epidemiologists, TB program managers and/or TB controllers.

Key point: A single program staff member should be designated to be responsible for reviewing and monitoring CI data (e.g. an Analyst or PHN Manager or Epidemiologist). The same or different individual should be responsible for using the data to provide feedback to field-staff (e.g. PHN manager, TB controller).

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Training field-staff to use comprehensive CI data collection forms :

1. Reinforcement of CI process
2. Initial determination of priority contacts,
3. Prioritization of screening and evaluation of high risk contacts
4. Collection of accurate information
5. Collection of new data elements
6. Completion of new forms
7. Adherence to CI policies and procedures
8. Adherence to timelines for returning completed CI data collection tools

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Training field-staff to manage and use CI data:

A. Data quality control & management
   1. Determine process for managing data
   2. Develop timeframes for data analysis, review
      a. Missing data reports
      b. incomplete data reports
      c. incorrect data reports
   3. Designate person to generate the reports
   4. Determine process to follow up on missing and incorrect information
   5. Designate person to provide feedback to staff
   6. Identify process to systematically check data entry
   7. Develop procedures to rectify inconsistencies

B. Bi-annual ARPE generation

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Focus of on-going reinforcement of CI skills and knowledge

1. **Bi-monthly case conferences**
2. **Annual TB Staff Development Workshop**

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Using Data to manage CIs

A. Quality Control
   1. Reinforce timely submission of forms
      a. Assess CI information on forms,
      b. Assess missing data reports
      c. Complete information on forms

B. Monitoring
   1. Identify problem areas
      a. Adhere to policies & procedures
      b. Adhere to treatment guidelines

C. Evaluation
   1. Use reports to evaluate CI process and outcomes, focus on high priority contacts
   2. Bi-annual ARPE generation

D. Evaluation feedback
   1. As needed 1:1 staff consultation
   2. Bi-monthly case conferences
      a. Reinforce policies & procedures
      b. Reinforce treatment guidelines
   3. Quarterly TB Management Meetings
   4. Quarterly CIIP newsletter
   5. Annual TB Staff Development Workshop

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Quality Control

Quality control and data management is essential to ensure that CI data is complete and accurate. There are a variety of approaches to conduct systematic review of CI data by developing:

1. **missing data queries and reports**
2. **validation queries and reports**
3. **QC and data management protocol**

Through this process you will need to identify why there missing data. Some possible reasons may be related to the flow of information between case manager and data reviewer, I.e., from regional offices to central office or field workers not completing the forms.

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Quality Control

Questions to consider when conducting data quality control:

- Is information on forms accurately recorded in database?
- Are data on forms recorded in a standard fashion?

Queries and reports used for CI quality control

Example:

Date contact identified and TST read

Process:

Data errors or missing information are flagged by the database

Purpose:

Line list reports can be generated and used to follow-up on data errors/missing information

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Monitoring

Questions to consider when monitoring CIs:

- **Is data recorded on forms consistent with established CI policies and procedures?**

- **How to systematically, in "real time" review of forms**

  Example: If discrepancies found, RCM immediately contacted and CI consultation conducted

Queries and reports to monitor individual CIs

Example:

Contact Investigation Summary

Implemented during:

Bi-monthly regional case conferences at which review of individual CIs is conducted

Purpose:

To help address individual and "bigger picture" problems

Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Quality control and monitoring highlighted challenges in:

- Calculating period of infectiousness
- Calculating cumulative hours of exposure
- Assessing area of exposure and ventilation
- Defining criteria for completion of evaluation
- Defining criteria for conducting CXRs
- Conducting HIV risk assessments
- Communicating with providers, both health department and private providers

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Planning & Implementing a Contact Investigation Improvement Project

Section 3: Implementation

Evaluation

When evaluating contact investigations the following questions should be considered:

1. Were an appropriate number of contacts identified?
2. Were the highest priority contacts evaluated?
3. Was the contact investigation performed in all settings: household or residence, work or school, and leisure and recreational?
4. Was contact investigation expanded appropriately?
5. Were contacts completely evaluated?
6. Was appropriate treatment prescribed?
7. What was LTBI treatment completion rate?
8. Did all identified cases complete an adequate treatment regimen?

Answers to these evaluation questions will help:

Determine effectiveness

Identify areas in need of improvement

Prioritize program activities and resources

Planning & Implementing a Contact Investigation Improvement Project

Section 4: Lessons learned

A. Data analysis helped identify gaps in knowledge of
   1. Relationship between TB and HIV
      a. Improve knowledge
      b. Improve skills to assessing risks
   2. Prioritization of contacts
      a. Assess disease progression in case
      b. Assess risk factors in contacts

B. Feedback and Skill Reinforcement
   1. Bi-monthly case conferences
   2. Quarterly program meetings
   3. Annual workshop

C. Evaluating Outcomes
   1. TB Program Performance
   2. TB Program Staff Performance

D. Quality Control
   1. Data collected on forms
   2. Data entry
   3. Incomplete data

E. Develop targeted interventions

F. Additional data analysis

Planning & Implementing a Contact Investigation Improvement Project

Section 4: Lessons learned

Develop Targeted Interventions

Evaluation of quantitative and qualitative outcomes will allow identification of program successes and gaps as well as areas to design interventions to enhance contact investigation performance.

Use the case conference as an on-going forum to provide feedback to staff *(refer to New Jersey Medical School National Tuberculosis Center "Planning and Implementing the TB Case Management Conference").*

The consideration of both quantitative and qualitative outcomes will identify areas where staff are meeting or exceeding performance standards as well as highlighting areas where staff may benefit from additional training and/or supervision.

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

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Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

This part of the manual provides resources and tools that may be used to improve contact investigations.

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

A. Introduction to Contact Investigation Improvement Project PowerPoint

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

B. Model contact investigation policies and procedures

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

C. Staff Roles and Responsibilities

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Roles and Responsibilities of Staff

TB Controller

1. The responsibilities of the TB Controller is, but not limited to developing and operationalizing the specific plan to improve CIs including:

   data collection,

   training,

   contact identification,

   evaluation, and

   completion of therapy.
2. Provides key input into each phase of CI improvement.
3. Provides substantial input in assessing the training and educational needs of staff and in the design of specific interventions for improvement.

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Roles and Responsibilities of Staff

TB Nurse Specialist- is responsible for daily oversight of CIs

The role of the TB Nurse Specialist is to provide consistent monitoring of contact investigations. This includes but is not limited to:

1. Review of data collection forms for:

   adherence to policies and procedures, timelines, and missing information
2. Ensure receipt of completed CI forms by communicating with case managers
3. Provide direct contact investigation consultation to staff
4. Coordinating case conferencing for CI staff,
5. Provide staff training and skill enhancement when needed
6. Generate queries and reports for CI monitoring
7. Generate ARPE on bi-annual basis

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Roles and Responsibilities of Staff

Case Managers

Are responsible for both TB Case Management and contact investigations. When conducting contact investigations, attention will be paid to the following steps:

1. Ensure appropriate and complete identification, evaluation, and medical management of contacts
2. Facilitate timely interjurisdictional referrals and contact follow-up
3. Complete and submit all CI forms in a timely fashion
4. Preserve essential information over time
5. Permit consistent use of information by all persons involved in the investigation, in spite of personnel changes
6. Facilitate complete and organized analysis for future programmatic use, including program evaluation and revising program priorities

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Roles and Responsibilities of Staff

Data entry staff

1. Receives Contact Investigation data collection forms, (includes opening, sorting, date stamping, and filing reports).
2. Enters case contact roster and contact information form into the Contact Investigation Management System,
3. Identifies and highlights errors for resolution,
4. Conducts quality control and data management processes, Performs weekly backup of database, and
5. Maintains confidentiality of all records and databases.

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Roles and Responsibilities of Staff

TB Epidemiologist

1. Responsible for performing and interpreting all analyses associated with the proposed objectives including:

   tracking project progress,

   conducting baseline and subsequent evaluations, and

   monitoring performance of the project.
2. Guided by TB controller, responsible for developing and implementing a detailed evaluation plan for each intervention.

Information Technology Support

1. Provides technical database support
2. Problem-solves database error messages
3. When appropriate, updates web-based software

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

D. Comparison table of state-recommended data elements versus recommendations from 1998 CDHS/CTCA Joint Guidelines

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Index Case Data Elements		
Recommendation Area	**1998 CDHS/CTCA Joint Guidelines[1]**	**2005 NTCA/CDC National Guidelines[2]**
Identifiers/ Demographics	Name Date of Birth Case Number	Name Date of Birth SSN Home address (shelter if homeless) and phone Patient number (assigned by local TB program) RVCT number (to be complete when it becomes available) Gender Race and ethnicity Country of birth Time in the US HARS #, if applicable
General interview details	Case Manager Date assigned Date completed	Initial interview date Follow-up interview date Was interview conducted in appropriate language? • Patient's primary language • Language used to conduct case interview Was a translator used? (professional or family/friend?)

Planning & Implementing a Contact Investigation Improvement Project

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Index Case Data Elements		
Recommendation Area	**1998 CDHS/CTCA Joint Guidelines[1]**	**2005 NTCA/CDC National Guidelines[2]**
Disease characteristics	Smear status Smear conversion date CXR done (y/) Mtb (=) (y/n) Drug resistance profile (INH, RIF, Other) Period of infectiousness Diagnosis	Site of disease Symptoms Date of symptom onset Chest x-ray results Sputum/culture status, specimen site, collection date Smear/culture conversion, dates Drug resistance profile TB medications, start/stop date Period of infectiousness Previous history of TB/TB Rx
Settings in which transmission may have occurred		Living situation (# family members and roommates) Employment (y/n), where employed name of employer, address School (y/n), name of school, address Social/recreational activities (y/n), name/address Congregate setting (y/n), type of setting, name/address

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Contact Data Elements		
Recommendation Area	**1998 CDHS/CTCA Joint Guidelines[1]**	**2005 NTCA/CDC National Guidelines[2]**
Identifiers/ Demographics	Name Date of Birth Age Home address, phone #, other phone#'s Sex Race Relationship to Index Case	Name and aliases Date of Birth Home address (shelter if homeless) and phone Sex Race and ethnicity Relationship to index case Country of birth SSN
General interview details	Staff Name	Investigator name Date identified as a contact Name of person who identified the contact, if different from index case Interview date Primary language, preferred language Speaks English (y/n) Translator used (y/n), (professional or family/friend?) If child, adult contacts to child Work/school info, name/address

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Contact Data Elements		
Recommendation Area	**1998 CDHS/CTCA Joint Guidelines[1]**	**2005 NTCA/CDC National Guidelines[2]**
Prioritization information	Contact type (close, casual, non-contact, high-risk)	Size of space Ventilation of site Frequency, duration, and time frames of interactions Medical/population risk factors (as defined by ARPE-TT)
Evaluation	Date of last exposure Prior (+) TST done (y/n) and date Initial TST date read, result (mm), converter (y/n) Retest required (y/n) Follow-up TST date read, result (mm), converter (y/n) TB class (initial) CXR date and result TB class (final)	Date contact broken Prior TB (y/n), provide documentation if yes Prior LTBI (y/n), provide documentation if yes Received BCG vaccination (y/n), date Symptoms reviewed (y/n) Has symptoms (y/n), type(s) of symptoms, onset date Initial/follow-up TST results (in mm and positive/negative) Initial/follow-up TST date placed and read Reasons TST not done CXR results, dates Reasons CXR was not done Bacteriologic test results, dates Reasons bacteriologic tests not done Final TB class, date

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

Contact Data Elements		
Recommendation Area	**1998 CDHS/CTCA Joint Guidelines[1]**	**2005 NTCA/CDC National Guidelines[2]**
Treatment for LTBI	Rx start date Meds (INH, INH+RIF, RIF, Other) Rx facility Disposition (I.e., final outcome of CI) and date: • PT not medically indicated • Completed full-course PT • Completed window PT, full course PT not indicated • Stopped PT, adverse reaction • Refused TST • Refused CXR • Refused PT or refused completion of PT • Moved • Lost • Died • New TB case	LTBI treatment offered (y/n) Reasons why LTBI treatment not offered LTBI treatment started (y/n) Start date(s) Reasons why LTBI treatment not started Treatment regimens(s), dose frequency, duration (include interruptions and/or changes in regimen and dates) Specify treatment adverse events Treatment stop date(s) DOT (y/n) Treatment outcome (consistent with ARPE, expand if necessary) • Completed treatment • Death • Moved (f/u unknown) • Active TB developed • Adverse effect of medicine • Contact chose to stop • Lost to f/u • Provider decision • Still on treatment (CA-ARPE) Provider type (public, private, both, unknown)

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

E. Draft "Data management chapter" from draft national guidelines

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

F. Contact Investigation Practice Assessment

1. Process and skills evaluation

2. HIV evaluation

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

G. Contact Investigation data collection tools

1. Case Contact Roster and instructions
2. Contact Information Form and instructions
3. Calculating Period of Infectiousness
4. Calculating Cumulative Hours of Exposure
5. Evaluation of data collection tools

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

H. Useful Contact Investigation queries and reports

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

I. Summary: Analysis and Evaluation of Contact Investigations in Santa Clara County

Analysis and Evaluation of Contact Investigations, Santa Clara County, 2004

Vinup K, Cilnis M, Pascopella L, Smith K, Flood J

Tuberculosis Prevention and Control Program, Public Health Department, Santa Clara County, CA

Description

In fall of 2001, the Tuberculosis (TB) Prevention and Control Program of Santa Clara County (SCC) in collaboration with the California Tuberculosis Control Branch (CaTBCB) initiated a Contact Investigation Improvement Project (CIIP). This Project was established to address the resource and time intensive nature of contact investigations (CIs) through development of new data collection tools, electronic database, and survey instruments to ensure that investigations are conducted in the most efficient and effective way possible.

Objectives

- Assess quality and timeliness of CIs through data collected on expanded CI forms
- Identify staff and programmatic strengths and challenges
- Analyze discrepancies between the paper generated and database generated Aggregate Reports for Tuberculosis Program Evaluation (ARPE)

Methods

TOOLS DEVELOPMENT

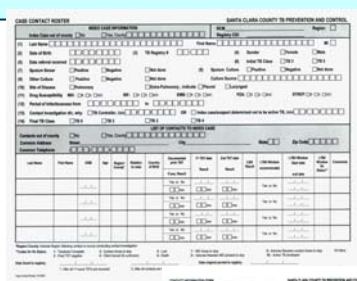
- Core data elements developed and definitions identified through statewide Contact Investigation Surveillance System Working Group (CISSWG) and specified by SCC.
- Additional data elements incorporated into forms provide information on: contact risk factors, employment status, country of origin, language and variables designed to quantify the duration and extent of exposure.
- Case Contact Roster (CCR) and Contact Information Form (CIF) incorporated collection of data elements.

IMPLEMENTATION

- Training conducted for TB Case Managers (TBCM) on CCR and CIF completion
- Reinforced assessment, collection and completion of data elements before, during and after interviews with TB suspect/case and contact and established timelines for receipt of CI information into TB Central Program
- Microsoft ACCESS database employed in SCC to collect CI information
- "Real time" review of CIs for analyses and evaluation through use of data quality control and management and CI performance queries and reports generated by database
- Retrospective CI review through database generated ARPE (DARPE)

CASE CONTACT ROSTER (CCR)

- Presents a reference list of contacts related to a particular contact investigation.
- Summarizes status of each CI
- Provides ability to assess likelihood of transmission and need to expand CI beyond standard close contact screening.



CONTACT INFORMATION FORM (CIF)

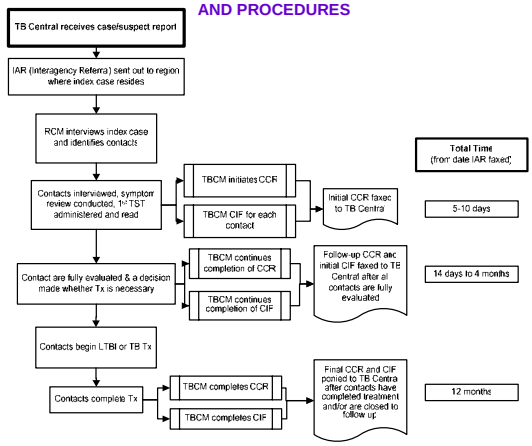
- The collection of additional data elements facilitates TB case manager's (TBCM) recognition of high priority contacts as well as to assess risk for infection and progression to disease.
- Tools developed to aid TBCM's in calculating period of infectiousness and cumulative hours of exposure

Methods

DATA REVIEW

- Forms forwarded to Central Program according to timelines established in the SCC CI policies and procedures.
- Information recorded on forms as well as missing data reports are assessed by the TB Controller and PHN Specialist on an ongoing basis.
- Discrepancies in assessment, screening, testing, evaluation and treatment of contacts is noted
- TBCMs are contacted by email or phone to review the information and re-enforce CI policies and procedures. Problem areas repeatedly identified by TBCMs or TB Central staff are reviewed and discussed during regular TB case conferences.

CI FORM FLOW AND TIMELINES ESTABLISHED IN SCC CI POLICIES AND PROCEDURES



INFORMATION SYSTEM AND DATA EVALUATION

- CI Information entered in ACCESS database
- Data reviewed for completeness, timeliness, and accuracy utilizing a series of reports and queries generated by the database
- Review process facilitates identification of gaps in TBCM performance and program structure
- TB Control program staff use reports to provide feedback to TBCM's during bi-monthly case conferences and quarterly programmatic meetings.

DEVELOPMENT OF AUTOMATED ARPE

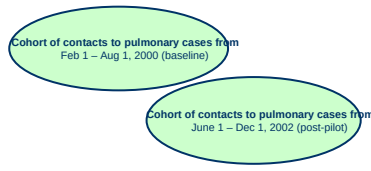
- Date case counted, site of disease and smear and culture results recorded on the Report of Verified Cases of Tuberculosis (RVCT) used as "gold standards" to determine the total TB cases reported and types of cases for investigations during co-hort period January 2003 to June 2003
- In accordance with **Basic Instructions for the Ca ARPE: Follow-up and Treatment for Contacts to TB Cases**, paper-based preliminary ARPE (PARPE) generated through chart review of TB cases counted during the above co-hort period. Outcomes of CI recorded on ARPE Data Tallying Tool and aggregated on Preliminary Report form
- Results of PARPE compared to DARPE for the same co-hort period.
- Outcomes measures compared between the PARPE and the DARPE. A chart review of the CI was conducted to reconcile discrepancies between two methods of ARPE generation.

Findings

- **CI Performance:**
  Strengths: Focus on CI protocol resulted in the screening and treatment of higher priority contacts as well as an increase in out of household contacts identified and evaluated.
  Challenges: Conducting systematic quality assurance and control highlighted challenges in the following areas: calculating period of infectiousness and cumulative hours of exposure, assessing area of exposure and ventilation, adherence of criteria for completion of evaluation, distinguishing between TB 2 and TB 4, need for CXRs, performing HIV risk assessments, and communication among health department clinic staff and private providers.
- **Automated ARPE:** Discrepancies of two general types were found between the PARPE and DARPE.
  1. Data Entry errors: *e.g.* inconsistencies between smear and culture status, site of disease and date case counted recorded on RVCT and in CI database
  2. Programming errors:
     - Differences between human and computer designation of investigations to considered "administrative no risk." If health department believes "contact" was not exposed, and an evaluation for TB disease or latent infection is not warranted "contact" is not included in ARPE.
     - Differences between human and computer designation of contacts with "insufficient or incorrect" locating information. These contacts are not counted on ARPE;
  3. Delays in processing RVCT information leading to mismatched categorization of cases;
  4. Missing and/or incomplete data on CCR and CIF submitted by TBCM.

Findings

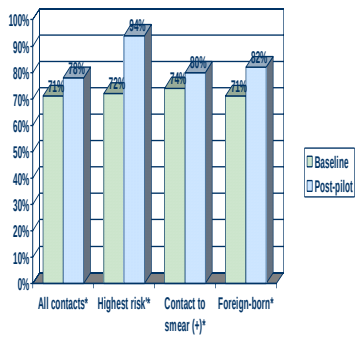
COMPARISON OF CI OUTCOMES BEFORE AND AFTER IMPLEMENTATION OF CIIP



Contacts stratified by smear/culture status of index case

- **Increase in proportion of contacts to smear (+) cases (64% post-pilot vs. 53% baseline*)**
- **Increase in the number of contacts per case (Median contacts: 7 post-pilot vs. 5 baseline)**
- **Decrease in proportion of "Other Pulmonary" contacts (10% post-pilot vs. 24% baseline*)**

Increase in contacts completing evaluation



*Chi-square p-value <0.05
‡Contacts that are <6 yrs of age, or have HIV risk factors

Conclusions

- "Real time" oversight of CIs, made possible through a combination of database generated reports, direct review of CI forms, and case conferences allows for quality control measures as well as accurate assessment of TBCM performance and programmatic successes and gaps. This helps to assure that highest priority contacts are screened tested and treated if necessary.
- Continued quality assurance of CI information collected on forms as well as quality control and data management of information entered in the database must be conducted.
- Conducting systematic quality assessments and comparing the PARPE to the DARPE revealed that inaccurate and/or incomplete data either recorded on the forms or entered in the database impedes accurate assessment of performance and quality of CIs.
- By recognizing the needs of individual TBCMs as well as the overall needs of the TB Control Program, interventions can be targeted towards staff skill development; increased oversight of TB case management and contact investigation; refinement of policies and procedures; and adherence to guidelines related to the timely collection and submission of data.
- Additional data analyses is necessary to determine to what extent the currently collected exposure variables accurately predict risk of transmission and progression to disease, or whether a more refined set of variables will be equally effective.

Acknowledgements

Valuable assistance was provided by staff from:

- Santa Clara County Tuberculosis Prevention & Controll Program
- Santa Clara County Regional Public Health Offices
- California Department of Health Services TB Control Branch

Planning & Implementing a Contact Investigation Improvement Project

Section 5: Resources

J. Sample Contact Investigation training tools

1. *Agendas*
2. *Sample Contact Investigation Quiz*
3. *Training evaluation*

Introduce CI project to stakeholders

Time allotment: 2.5 hours

Objectives: Introduce project goals
Clarify roles and responsibilities
Introduce data collection tools

Supplements: examples of CI data collection forms

Time	Content	Methodology
5 minutes	Introduction and welcome	Review packet of information and objectives of meeting
15 minutes	Objectives of CI project	Identify the following: local epidemiology of TB, structure of contact investigations, how to address program strengths and challenges, project background, draft data collection tools
30 minutes	Project milestones and timeline	Discuss desire to enhance CI performance, development of CI tools, trainings, evaluation of outcomes and effectiveness through development of database, timeline of interventions. Gather investigator input
45 minutes	Review outcomes of needs assessments	Historical cohort data analysis, survey, chart audit, field evaluations, ARPE outcomes
30 minutes	Introduce CI data collection forms	
30 minutes	Questions and discussion	Promote discussion of project

CI Data Collection Forms Training

Time allotment: 1.5 hours

Objectives: Introduce data collection forms and corresponding data dictionaries
Reinforce skill development and interviewing techniques CIs

Supplements: Case Contact Roster (CCR) and data dictionary, Contact Information Form (CIF) and data dictionary, Calculating Period of Infectiousness Form, Calculating Cumulative Hours of Exposure, Scenario

Time	Content	Methodology
5 minutes	Introduction and welcome	Review goals of CI project and objectives of training
45 minutes	Review data collection tools: Client contact roster (CCR)/data dictionary Contact information form (CIF)/data dictionary	What is the purpose of this form? What information will be collected? How to use the data dictionary? Review calculating period of infectiousness. Conduct exercises to calculate duration of exposure. Review need for confidentiality.
60 minutes	Scenario	Use scenario to facilitate familiarity with the form. Begin with contact roster and use one contact from the roster to complete the contact information form.
15 minutes	Questions and discussion	Promote discussion on forms project

Staff Development Workshop: Improving CI performance

Time allotment: 5 hours

Objectives: Identify program strengths and challenges
Identify responsibilities of TB case managers
Reinforce skills and knowledge related to CIs

Time	Content	Methodology
5 minutes	Introduction and welcome	Review goals of CI project and objectives of training
30 minutes	Local TB update	Describe local trends in epidemiology of TB. Identify groups at highest risk for TB.
40 minutes	Needs Assessment Presentation	Identify barriers to conducting contact investigations. Establish training needs for case managers
50 minutes	CI data collection forms	Discuss completion of forms and timelines relating to established CI policies and procedures. Identify areas where forms could be improved.
1 hour	Breakout sessions	Identify proactive methods to address CI case management barriers. Develop procedures to institutionalize quality assurance.
1 hour	Breakout Session report	
20 minutes	Complete Worksheet for Practice Modification	
20 minutes	Complete Workshop Evaluation	

Planning & Implementing a Contact Investigation Improvement Project

Guide to Improving Contact Investigations

Policy and Procedures for Conducting Tuberculosis Contact Investigations

1

Planning & Implementing a Contact Investigation Improvement Project:

Policy and Procedures for Conducting Tuberculosis Contact Investigations

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Planning & Implementing a Contact Investigation Improvement Project:

Policy for Conducting Tuberculosis Contact Investigations

Policy statement:

This policy establishes a minimum standard of care for conducting contact investigations.

A contact investigation should be conducted for all suspected or confirmed cases of pulmonary, pleural, and/or laryngeal TB. Since TB transmission does not occur (except under highly usual circumstances) from patients with extra-pulmonary TB, a contact investigation is neither necessary nor appropriate for cases which are only extra-pulmonary. Pediatric TB cases and certain children with positive tuberculin skin test (TST) results require an investigation to determine the source of their infection.

Contact investigations should be prioritized to ensure that the most infectious cases and suspects have a prompt and thorough contact investigation. A systematic approach to contact investigations is essential to focus investigative efforts and ensure that resources are spent providing services to persons who are most at risk for TB infection or disease.

Planning & Implementing a Contact Investigation Improvement Project:

Policy for Conducting Tuberculosis Contact Investigations

Rationale:

Every case of TB begins as a contact to a person with active pulmonary or laryngeal TB disease. For this reason, CDC, CDHS, and the CTCA have identified contact investigation as a fundamental strategy for the prevention and control of TB. A contact investigation is the process of identifying, examining, evaluating, and treating all persons who are at risk of infection with *M. tuberculosis* due to recent exposure to a newly diagnosed or suspected case of pulmonary or laryngeal TB.

Public health goals of a contact investigation are to:

- terminate transmission
- identify additional cases and ensure proper treatment
- prevent disease development among infected contacts

Planning & Implementing a Contact Investigation Improvement Project:

Policy for Conducting Tuberculosis Contact Investigations

Roles and Responsibilities of Staff

TB Controller

1. The responsibilities of the TB Controller is, but not limited to developing and operationalizing the specific plan to improve CIs including:

   data collection,

   training,

   contact identification,

   evaluation, and

   completion of therapy.
2. Provides key input into each phase of CI improvement.
3. Provides substantial input in assessing the training and educational needs of staff and in the design of specific interventions for improvement.

Planning & Implementing a Contact Investigation Improvement Project:

Policy for Conducting Tuberculosis Contact Investigations

Roles and Responsibilities of Staff

TB Nurse Specialist- is responsible for daily oversight of CIs

The role of the TB Nurse Specialist is to provide consistent monitoring of contact investigations. This includes but is not limited to:

1. Review of data collection forms for:
   adherence to policies and procedures,
   timelines, and
   Missing information
2. Ensure receipt of completed CI forms by communicating with case managers
3. Provide direct contact investigation consultation to staff
4. Coordinating case conferencing for CI staff,
5. Provide staff training and skill enhancement when needed
6. Generate queries and reports for CI monitoring
7. Generate ARPE on bi-annual basis

Planning & Implementing a Contact Investigation Improvement Project:

Policy for Conducting Tuberculosis Contact Investigations

Roles and Responsibilities of Staff

Case Managers

Are responsible for both TB Case Management and contact investigations. When conducting contact investigations, attention will be paid to the following steps:

1. Ensure appropriate and complete identification, evaluation, and medical management of contacts
2. Facilitate timely interjurisdictional referrals and contact follow-up
3. Complete and submit all CI forms in a timely fashion
4. Preserve essential information over time
5. Permit consistent use of information by all persons involved in the investigation, in spite of personnel changes
6. Facilitate complete and organized analysis for future programmatic use, including program evaluation and revising program priorities

Planning & Implementing a Contact Investigation Improvement Project:

Policy for Conducting Tuberculosis Contact Investigations

Roles and Responsibilities of Staff

Data entry staff

1. Receives Contact Investigation data collection forms, (includes opening, sorting, date stamping, and filing reports).
2. Enters case contact roster and contact information form into the Contact Investigation Management System,
3. Identifies and highlights errors for resolution,
4. Conducts quality control and data management processes, Performs weekly backup of database, and
5. Maintains confidentiality of all records and databases.

Planning & Implementing a Contact Investigation Improvement Project:

Policy for Conducting Tuberculosis Contact Investigations

Roles and Responsibilities of Staff

TB Epidemiologist

1. Responsible for performing and interpreting all analyses associated with the proposed objectives including:

   tracking project progress,

   conducting baseline and subsequent evaluations, and

   monitoring performance of the project.
2. Guided by TB controller, responsible for developing and implementing a detailed evaluation plan for each intervention.

Information Technology Support

1. Provides technical database support
2. Problem-solves database error messages
3. When appropriate, updates web-based software

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Essential forms for completion

When evaluating contacts to infectious TB cases, at minimum the following forms will be completed and forwarded to the appropriate personnel for review.

A. *Initial Client Assessment for Pulmonary TB*
B. *Tuberculosis Case Contact Roster*
C. *Tuberculosis Contact Information Form*

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Planning & Implementing a Contact Investigation Improvement Project:

Procedures for Conducting Tuberculosis Contact Investigations

The following section is divided into:

1. ***Twenty-two(22) procedures that describe the process of eliciting contact information and conducting contact investigations and includes activities in a typical sequence***

2. ***Ten (10) appendices that provide additional detail on the activities***

3. ***Tools to assist with these activities***

Planning & Implementing a Contact Investigation Improvement Project:

Procedures for Conducting Tuberculosis Contact Investigations

The following section is divided into twenty-twenty (22) procedures:

Planning & Implementing a Contact Investigation Improvement Project:

Procedures for Conducting Tuberculosis Contact Investigations

Procedure 1: Collecting Initial Index Case Information

I. Timeframe
   A. Complete preliminary risk assessment of index case within one working day of receipt of case report
   B. Complete case report within three working days of receipt.

II. Conduct a preliminary risk assessment
   A. Upon receipt of the case report, staff should immediately assess the following:
      1. Index case's infectiousness
      2. High-risk contacts
      3. Transmission in settings containing a large number or high density of persons
   B. Establish timeframes and urgency of the contact investigation.
   C. Revise preliminary risk assessment, if necessary, when case report is completed

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Procedures for Conducting Tuberculosis Contact Investigations

Procedure 2: Evaluating Initial Index Case Information

I. Review initial report.
II. Obtain the following information:
    A. Identifiers
        a. Full name and any aliases
        b. Date of birth
        c. Locating information
    B. Disease-related information
        a. Site of disease
        b. Symptoms, severity, and onset date
        c. Chest x-ray results
        d. TB medications: dosages, start/stop dates
        e. Bacteriological results: AFB smears and cultures
        f. Prior history of TB disease, infection, treatment
        h. Psychosocial conditions

Planning & Implementing a Contact Investigation Improvement Project:

Procedures for Conducting Tuberculosis Contact Investigations

Procedure 2: Evaluating Initial Index Case Information

C. Contact information
   a. Names and locating information
   b. High-risk contacts

D. Settings of possible TB transmission and timeframes
   a. Living situation
   b. Employment history
   c. School
   d. Social/recreational activities

E. Obtain missing information about the index case from: patient's provider or reporting source, laboratories, radiology departments, and pharmacies.

F. Missing information about contacts or settings in which transmission may have occurred should be obtained during the index case interview

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Procedure 3: Interviewing Index Case

I. Timeframes
   - A. Interview the index case within three working days of receipt of the report
     1. Index case is AFB sputum smear positive or
     2. High risk contacts
   - B. Interview AFB sputum smear negative index cases within seven working days.

II. Index case interview
   - A. Interview conducted in home or patients dwelling
     1. May reveal information not initially provide about contacts
     2. Provide opportunity to identify and resolve discrepancies between the index case's answers to interview questions and observations about contacts and risk factors

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Planning & Implementing a Contact Investigation Improvement Project:

Procedures for Conducting Tuberculosis Contact Investigations

Procedure 3: Interviewing Index Case

III. Key Interview/Assessment Activities
- A. Establish rapport and confidentiality
- B. Provide information and materials about TB, transmission and LTBI
- C. Confirm previously obtained information and rectify conflicting information
- D. Obtain additional information about the index case's potential level of infectiousness
- E. Define likely period of infectiousness
- F. Determine environmental characteristics of TB transmission during period of infectiousness
  - a. Area of exposure
  - b. Ventilation
  - c. Cumulative hours of exposure

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Procedure 3: Interviewing Index Case

G. Obtain information about potential contacts
   1. Name and locating information
   2. Date of birth or age
   3. TB Medical information (I.e., presence of symptoms and date of onset, TST history)
   4. Presence of risk factors
   5. Area of exposure, ventilation and cumulative hours of exposure of each potential contact

H. Classify persons as household vs. non-household, close vs. not close, and non-contacts.

I. Establish high-risk contacts

J. Obtain locating/demographic/risk factor information (home, work, school, and social/recreational activities) for identified contacts

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Procedure 4: Reinterviews

Assigned staff are unlikely to obtain complete contact information in only one interview because the index case may:

1. Feel sick
2. Not yet have developed trust with staff
3. Not be able to immediately recall all contacts
4. Be anxious about diagnosis
5. Be worried about confidentiality

All index cases must be reinterviewed one or more times to ensure that accurate and complete contact information is elicited.

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Procedure 5: Establishing Contact Investigation Priorities

I. Review and verify essential index case and contact information obtained from:
   A. medical chart
   B. interview write-up, and
   C. obtain hardcopy of all index case diagnostic test results, including laboratory, radiographic, and TST.
   D. Address information gaps promptly.

   Note: Timely contact investigations are critical to TB control, proceed with investigation, even if information is incomplete.

II. Prepare Tuberculosis Case Contact Roster and Contact Information Form

III. Prioritize and establish timeframes for contact follow-up.

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Procedure 6: Interviewing and Assessing Contacts

I Purpose of Contact Interview
- A. Assess whether contacts are high-risk
- B. Ensure contacts receive timely and appropriate medical evaluation
- C. Identify contacts potential adherence barriers
- D. Obtain additional index case information (I.e., additional contacts)

II. Content of interview
- A. Establish trust and rapport
- B. Confirm contact's identity
- C. Explain confidentiality and nature of visit
- D. Personal information:
  1. Home and work addresses
  2. Telephone numbers
  3. Date of birth
  4. Aliases and dates of birth
  5. Place of birth
  6. Data of arrival in US

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Procedure 6: Interviewing and Assessing Contacts

III. Content of interview
- A. Current TB exposure
  1. Contact informed about exposure
  2. Area of exposure
  3. Ventilation
  4. Cumulative hours of exposure
- B. TB History
  1. Prior TB exposure
  2. Dates and results of prior TST
  3. History of treatment for disease or infection
  4. BCG history
  5. Travel to TB endemic areas
- C. Current TB signs and/or symptoms
  1. Type
  2. Severity
  3. Onset and duration of each
  4. Arrange immediate evaluation
- D. Medical history: Chronic conditions
- E. HIV risk factors

Planning & Implementing a Contact Investigation Improvement Project:

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Procedure 6: Interviewing and Assessing Contacts

IV. Adherence assessment throughout the contact interview, assess the contact's psychosocial needs and other risk factors that may influence future adherence; problem-solve and use incentive/enablers as needed. Consider using Directly Observed Therapy (DOT).

V. Referral for evaluation: Identify health care sources and make appropriate referrals (I.e., clinics, social services, drug treatment, housing, HIV testing)

VI. Additional index case information: When appropriate, interview the contact about the index case in order to verify current information and/or obtain new information. For example, if the index case's wife knows her husband has TB, she may be interviewed about his adherence, risk factors, symptom history, and his other potential contacts.

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Procedure 7: Reprioritizing Contacts

I. While assigned staff initially prioritize contacts based on information obtained from the index case, staff must analyze information obtained through contact interviews to determine if contacts should be reprioritized to ensure staff focus on contacts who need prompt evaluation. Determine if contact is:
   A. High-risk vs. not high-risk
   B. Household vs. non-household
   C. Close vs. not close

II. Revise case contact roster and contact information forms as needed.

III. Ensure timely and appropriate medical management of contacts

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Procedure 8: Timeframes for Initial Contact Follow-up

I. Screening, defined as
   - A. Contact interview, and
   - B. Symptom screen, and
   - C. TST placement and reading, if indicated

II. Medical evaluation, defined as:
   - A. History and physical exam, and
   - B. Chest x-ray, and
   - C. Bacteriologic studies, if indicated, and
   - D. Initiation of preventive therapy, if indicated
   - E. Initiation of treatment for active disease, if indicated

Planning & Implementing a Contact Investigation Improvement Project:

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Procedure 8: Timeframes for Initial Contact Follow-up

Table 1. Timeframes for Initial Contact Follow-up

Type of contact	Working days: Identification of contact to completion of screening	Working days: completion of screening to completion of evaluation
Close contact to AFB sputum smear positive index case OR High-risk contact regardless of index case's smear results OR Symptomatic contacts	5	5
Close Contact (who is not high-risk) to AFB sputum smear negative index case OR Not close contact (who is not high-risk), regardless of index case's sputum smear result	10	10

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Procedure 9: Tuberculin Skin Testing

I. TST result < 5mm, no further testing necessary if,
   A. More than 12 weeks from exposure OR
   B. More than 12 weeks since index case was infectious

II. TST < 5mm, repeat TST:
   A. 10-12 weeks after last exposure OR
   B. 10-12 weeks after index case is not infectious if contact not broken OR
   C. 10-12 weeks after initial test

   Note: Repeat testing not necessary if the initial test was placed > 12 weeks after last contact

III. Repeat TST every 12 weeks when contact with persistently infectious case is not broken

IV. Contacts with documented prior positive TST do not need a TST

V. Contact with history of BCG: place, read and interpret without regard to BCG history

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Procedure 10: TST Screening for contacts < 12 months

I. The immune system of infants < 1 year of age may not be sufficiently mature to respond to tuberculin even if the child has TB infection and/or disease. TB status cannot be determined until one of the following criteria is met:
   A. TST is positive (≥ 5mm induration) OR
   B. TST is negative AND it is >12 weeks break in contact with TB case AND child is > 1 year old

II Infants are at high risk of rapid progression to disseminated TB if infected. To appropriately guide duration of therapy infection must be detected as soon as possible. Infants in continual contact with an active pulmonary TB case should have a TST repeated every 10-12 weeks until 12 weeks break in contact. If the child is < 1 year old and 12 weeks after the break in contact, repeat TST when child is 1 year old.

III. Window Prophylaxis
Since infants are high risk, place all infants exposed to active, pulmonary TB disease on window prophylaxis. Infants remain on therapy upon determination of TB status or completion of 9 months of INH (or 6 months of RIF).

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Procedure 11: Ensure Medical Evaluation

I. All contacts should receive medical evaluation if any of the following criteria exist
   - A. Symptoms of TB disease (rule out TB disease before initiating LTBI therapy
   - B. TST result < 5mm
     1. Any contact high-risk
     2. Other persons if,
        - a. <18 y.o. and close contact to a sputum smear positive suspect/case
        - b. medical conditions associated with increased risk of TB disease progression
   - C. TST result > 5mm

II. Refer contacts at risk for HIV infection for HIV counseling and testing

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Procedure 12: Latent TB Infection treatment for contacts

I. Indications
   A. TST < 5 mm, after TB disease ruled out by clinical exam, CXR, and other diagnostic tests,
      1. Any high-risk contacts
      2. Other persons if,
         a. <18 y.o. and close contact to a sputum smear positive suspect/case
         b. medical conditions associated with increased risk of TB disease progression
   B. TST result > 5mm, after TB disease ruled out by clinical exam, CXR, and other diagnostic tests,
      1. Any high-risk contact
      2. Close contacts, not high risk
      3. Preventative therapy for other contacts determined on case by case basis.
         a. Evidence of extensive vs. minimal transmission among contacts
         b. Probability of remote vs. recent exposure
         c. Benefits vs. risks of preventative therapy
         d. If documented prior TST, consider apart from circumstances of recent contact

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Procedure 12: LTBI treatment for contacts

II. Documented prior completion of LTBI therapy
   A. Contacts, not high-risk who have completed adequate preventive therapy generally do not need preventive therapy again
   B. High-risk contacts with HIV infection or at risk for HIV infection should be reevaluated and given preventive therapy again
   C. Children < 6 year old should be reevaluated. If judged to be significantly immunosuppressed, consider LTBI.
   D. Contacts with medical conditions, other than HIV, associated with risk of TB disease progression should be reevaluated. If judged to be significantly immunosuppressed, consider LTBI.

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Procedure 12: LTBI treatment for contacts

III. High-risk contacts and window prophylaxis

A. High-risk contacts (including children under 4 years of age) with a negative skin test reaction less than 10-12 weeks after exposure should start treatment for LTBI and be retested after the window period ends. This is called window period prophylaxis.

B. If the second skin test reaction is negative, treatment for LTBI may be stopped. If the second skin test reaction is positive, they should continue taking treatment for LTBI.

C. HIV-infected contacts or other immunosuppressed contacts may be given a full course of treatment for LTBI, regardless of their skin test results, because of the possibility of a false-negative skin test result. This is particularly true when there is evidence of transmission to other contacts with a similar degree of exposure and likelihood of a false-negative skin test result.

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Procedure 13: Special circumstances in LTBI therapy for contacts

I. Contact to index case resistant to INH but susceptible to Rifampin:
   - A. High-risk contacts: Rifampin, or INH and Rifampin for 6-12 months
   - B. Class II with history of prior positive TST or significant likelihood of prior infection who has not completed therapy: INH LTBI therapy if otherwise indicated (apart from history of recent contact)
   - C. Other patients: risks and benefits of INH, Rifampin, or both should be evaluated on a case by case basis.

II. Contact with index case resistance to INH and Rifampin (MDR-TB): (See Management of Persons Exposed to Multidrug-Resistant Tuberculosis. MMWR/Vol. 41/No. RR-11.)

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Procedure 14: Medical Management of Prior documented positive TST Contacts

I. Screen for TB symptoms
II. If symptomatic, refer for immediate evaluation, including CXR
III. Contact who is asymptomatic and not high-risk
    A. Evaluate for factors that may increase the risk of re-infection regardless of prior history of INH LTBI therapy (I.e., evidence of transmission in the contact investigation, AFB smear positive index case, cavitary disease in the index case)
    B. Refer to clinician to asses need for preventative therapy if significant risk of re-infection is present
II. Contact who is asymptomatic and has HIV infection or risk factors
    A. Refer for CXR and recommend a full course of preventive therapy, regardless of treatment history for TB infection or disease.
    B. If CXR is abnormal, handle as a TB suspect

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Procedure 15: Medical Management of Contacts Evaluated by Private Providers

I. Case Manager may refer contact to private provider for medical evaluation and follow-up at client's request. Responsibilities include:

- A. Ensure provider understands recommendations for medical evaluation and follow-up of contacts
- B. Assess and address potential barriers to timely follow-up with private provider. Ensure follow-up is managed appropriately.
  1. Verify and obtain evaluation results and follow-up, including symptom screen, CXR, other diagnostic lab tests, and treatment
  2. Case Manager should assess quality of care in the private sector and offer medical education to providers regarding TB diagnosis and management, as needed
- C. Case Manager will follow contact through completion of therapy, even if index case has completed TB treatment and closed to follow-up

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Procedure 16: Suggestions for addressing non-compliant contacts (including screening, evaluation and LTBI therapy)

I. Legal orders may be issued by the Health Officer or TB Controller requiring the contact to comply with screening and exam recommendations. (Ref: Health and Safety Code 121363 and 120175)

II. When parents/guardians of contacts <18 year old do not assist in contacts follow-up:

   A. Refer to county TB Program and/or Health Officer with description of attempts to achieve compliance.

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Procedure 17: Medical Management of Non-Contacts

I. Self-described contacts who meet the definition of a non-contacts and request testing should be treated as screening subjects only, with evaluation or referral to private medical providers for follow-up. Offer education and skin testing for reassurance.

II. Screened non-contacts should not be identified as contacts on the Tuberculosis Contact Record.

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Procedure 18: On-going Management and Preliminary Analysis of the Contact Investigation

The success of the overall contact investigation largely hinges upon careful follow-up that occurs after the initial contact activities. During this ongoing work, contact investigations sometimes break down -- staff lose momentum, newly assigned cases require immediate time and attention, and record keeping systems do not always facilitate ongoing analysis.

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Table 2. Overview of Ongoing Management Activities and Maximum Timeframes

Activity	Purpose	Maximum Time Interval
Review all documentation	To ensure contact list is complete	Ongoing
Review and assess completeness of each contact's medical follow-up	To ensure appropriate and complete medical follow-up	5 working days after each contact's medical evaluation
Determine if transmission occurred	To decide whether to expand evaluation	At completion of follow-up testing or if secondary cases identified
Obtain and review drug-susceptibility result	To determine if contacts are receiving appropriate LTBI therapy	1-2 months after the index case's initial sputum collection date
Repeat TST if contact initially TST negative	To determine if contact has converted (TB I to TB II)	10-12 weeks after each contact's initial medical evaluation

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Table 2. Overview of Ongoing Management Activities and Maximum Timeframes continued

Activity	Purpose	Maximum Time Interval
Reevaluate contacts who were initially TST negative and started on LTBI therapy or window prophylaxis for TB I	To determine if LTBI therapy should be continued	10-12 weeks after each contact's initial medical evaluation
Assess contact's adherence with medical follow-up and TB medication	To remove barriers and ensure timely and complete evaluation and follow-up	Monthly, at time of each visit
Ensure contacts are monitored for adverse reactions and toxicity of LTBI therapy regimens	To prevent development of adverse effects and toxicity from drug regimens	At least monthly while on preventative therapy
Evaluate problems and concerns that arise that may delay and hamper contact investigation	To remove barriers and ensure timely and complete evaluation and follow-up	Any time problems are identified

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Procedure 19: Determine if case contact roster is complete

Review the index case's medical record and case management notes for clues about previously unidentified contacts (e.g., index case did not list any child contacts, but chart notes that patient could not make an appointment because he was babysitting). Re-interview the index case. (See Procedure Interviewing and Assessing the Index Case)

Review notes to determine if contacts originally named by the index case indicated that additional persons need follow-up.

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Procedure 20: Ensure complete and appropriate medical evaluation and treatment

I. Ensure documentation is complete for:
   A. Index case: final diagnosis, drug susceptibility results, adherence, sputum culture conversion, and follow-up CXR status are critical for on-going analysis
   B. Contacts: Initial and follow-up TST, CXR, symptoms, medication type and start and end dates, risk-status, degree of exposure and diagnosis

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Procedure 21: Determine if transmission has likely occurred

I. Review contact evaluation results
II. Transmission may have occurred if investigation reveals:
    A. Documented converters
    B. Secondary cases
    C. TB infection prevalence among contacts is higher than expected
III. Interpreting TST results in BCG-vaccinated contacts and contact from countries with a high prevalence of TB
For clinical purposes, new TB infection should be assumed with a positive TST result
IV. Interpreting TST results in immunosuppressed contacts
    A. Increased likelihood of false negative TST results can make it difficult to determine if transmission has occurred.
    B. If transmission cannot be ruled out among inner-circle close contacts because of immunosuppression, testing should include contacts who were not previously tested.

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Procedure 22: Update index case information

I. Obtain and record culture result
II. If Mtb culture negative, consult with client's medical provider. Determine if suspects classification as case or not TB.
   A. If the index case has been ruled out for TB, discontinue the contact investigation
   B. If case is culture negative or suspect is not TB, discontinue INH window prophylaxis for Class I contacts, unless otherwise indicated.
III. If Mtb culture positive, obtain and record drug-susceptibility results to ensure index case and contacts are receiving appropriate therapy.
IV. Monitor AFB sputum smear results every two weeks and culture results monthly until 3 consecutive negative results
   A. If sputa specimen(s) remain bacteriological positive after two months of treatment or become positive after initially converting to negative, determine and address reasons
   B. Failure to convert to negative sputum smear may require additional contacts needing evaluation, prolonging window prophylaxis for Class I contacts, and follow-up TST until three months after culture conversion of index case, if contact not broken

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Conducting Tuberculosis Contact Investigations

The following section is divided into ten (10) Appendices:

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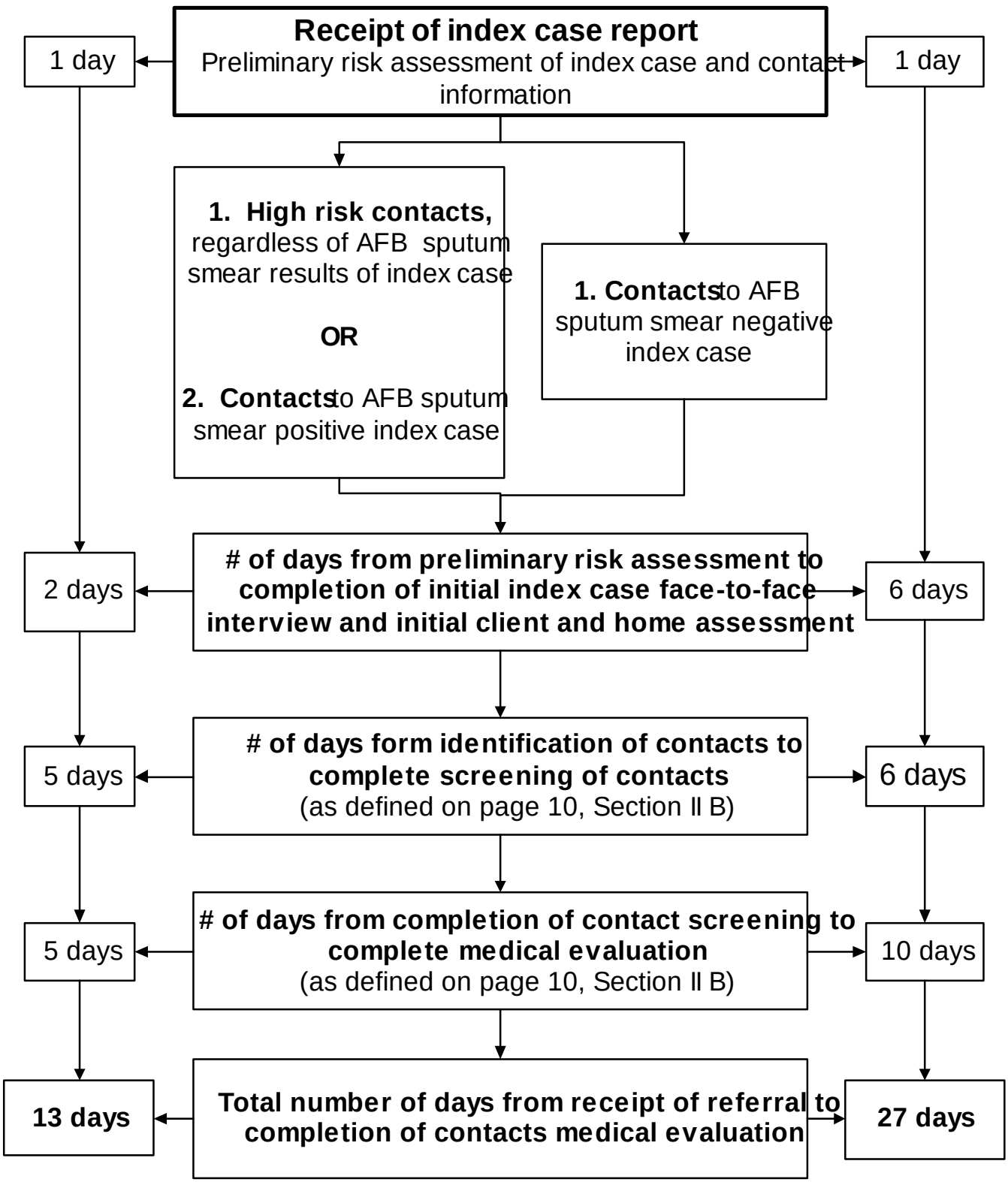
Appendix 1. Objectives for Contact Investigations

The following objectives for contact investigations have been adapted from the CDC.[3]

- At least 95 percent of infectious suspects and confirmed TB cases will have contacts identified.
- At least 95 percent of known contacts to infectious suspects and confirmed TB cases will receive examinations.
- At least 95 percent of known infected contacts under 16 years of age will be placed on preventive therapy
- At least 75 percent of known infected contacts l6 years of age or older will be placed on preventive therapy.
- At least 90 percent of known infected contacts under the age of 16 placed on preventive therapy will complete a minimum of six continuous months of preventive therapy.
- At least 75 percent of known infected contacts 16 years of age or older placed on preventive therapy will complete a minimum of six continuous months of preventive therapy.

[3]Department of Health and Human Services Centers for Disease Control and Prevention. Announcement 700: TB Elimination Cooperative Agreements National TB Program Objectives, NY 1997. p. 10-11.

Appendix 2. Contact Investigation Process and Maximum Timeframes



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Appendix 3. Factors Associated with Increased Risk of HIV Infection

Behaviors or medical conditions that have been reported to increase the risk of HIV infection include, but are not limited, to the following:

I. Parenteral
   - A. Injection drug use
   - B. Blood or body fluid exposure
   - C. Blood transfusion between 1980-1985
   - D. Hemophilia

II. Sexual
   - A. Men who have sex with men (MSM)
   - B. Unprotected receptive anal intercourse with infected or high-risk partner(s)
   - C. Unprotected vaginal intercourse with infected or high-risk partner(s)
   - D. Multiple partners

III. Congenital
   - A. Children of mothers infected or at risk

Note: *Persons with above behaviors or conditions not known to be HIV negative for at least 6 months following their last possible HIV exposure or risk behavior should be counseled regarding HIV risk reduction and offered confidential HIV testing. While HIV test results are pending, such persons should be managed as high-risk contacts until known to be HIV negative at least 6 months after their last possible exposure or risk behavior. When confidential HIV testing is refused, anonymous HIV testing should be offered.*

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Appendix 4. Medical Conditions Associated with Increased Risk of Progression to TB Disease

Medical conditions[4] which have been reported to increase the risk of progression from TB infection to disease include, but are not limited, to the following:

- HIV infection (See Appendix 3)
- Diabetes mellitus
- Prolonged therapy with steroids
- Immunosuppressive therapy
- Hematological and reticuloendothelial diseases (e.g., leukemia or Hodgkin's disease)
- Injection drug use in persons known to be HIV-negative
- End-stage renal disease

Clinical situations associated with substantial rapid weight loss or chronic undernutrition (e.g., intestinal bypass surgery for obesity, gastrectomy, chronic malabsorption syndrome, chronic peptic ulcer disease, chronic alcoholism, cancer of the oropharynx and upper gastrointestinal tract)

[4] American Thoracic Society**.** Treatment of Tuberculosis and Tuberculosis Infection in Adults and Children**.** *Am J. Respir* Crit *Care Med* 1994; 1359 1374.

Appendix 5. Defining likely Period of Infectiousness

I. Recommended minimum BEGINNING of likely period of infectiousness

Index Case Characteristics				Criteria
AFB Sputum Smear		TB Symptoms		
Positive	Negative	No	Yes	
X		X		12 weeks prior to first positive finding consistent with TB
X			X	10 weeks prior to symptom onset or 12 weeks prior to the date of the first positive finding consistent with TB (whichever is longer)
	X	X		8 weeks prior to date of first positive finding consistent with TB
	X		X	10 weeks prior to symptom onset, or 10 weeks prior to the date of the first positive finding consistent with TB (whichever is longer)

. Recommended minimum END of likely period of infectiousness

AFB Sputum Smear		Criteria
Positive	*Negative	
X		1. Completion of 2 weeks of adequate and appropriate therapy AND 2. 3 consecutive negative sputum smears from specimens collected on 3 separate days
	X	1. Completion of 4 days of adequate therapy.
For patients with MDR TB, regardless of smear status, the infectious period ends when the patient is consistently culture-negative		

I. Review Index Case Characteristics

1. Date of symptom onset and duration of symptoms
2. Extent of disease (e.g. cavitary disease on CXR or AFB smear +)

I. Revising the beginning of the likely period of infectiousness

1. Consider adding additional 2 months to the beginning of the index case's likely period of infectiousness if you find that transmission has occurred among contacts who were exposed to the index case at the beginning of the determined period of infectiousness
2. If index case experiences Tx failure extend the likely period of infectiousness
3. If likely period of infectiousness is based on fewer than 3 negative AFB sputum smear results, may need to revise if results from subsequent smear results are positive

***** For smear negative patients, if extensive or cavitary disease is present, consideration should be given to extending the end of the infectious period. Consult with the TB treatment specialist.

Note: *Positive findings consistent with TB include, but are not limited to, the following: specimen collected which suggests or confirms a diagnosis of TB (positive AFB smear, positive NAAT for M. tb, positive M. tb culture), or chest x-ray showing abnormality consistent with TB, or initiation of treatment for TB.*

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Appendix 6. Protecting Index Case Confidentiality

Contact follow-up can and should be accomplished without jeopardizing index case confidentiality.

I. Confidentiality problems may occur when staff:
   - A. Inadvertently reveal clues about index case
   - B. Provide index case information to motivate contacts
   - C. Unable to appropriately and assertively respond to uncooperative contacts
   - D. Incorrectly assume index case has informed others about his or her TB diagnosis

II. Use following strategies to protect confidentiality
   - A. Use gender neutral language in all situations
   - B. Careful not to violate confidentiality by contacts who assert that they were not exposed or refuse evaluation until they are told the index case's identity
   - C. Do not mention index case's provider, place or dates of diagnosis, or hospitalization
   - D. Do not mention environment of exposure
   - E. Do not specify dates of exposure
   - F. When following up with interjurisdictional referrals, do not mention which county or state initiated the referral.

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Conducting Tuberculosis Contact Investigations

Appendix 7: When Revealing Index Case Information is Appropriate

I. As a last resort, to protect the public health, when the contact investigation cannot be conducted unless information about the index case's TB status is revealed without prior permission

II. When staff decided they must reveal index case information without prior permission, they must consult with a supervisor and/or the TB Controller to obtain approval to breach confidentiality. This approval should be documented in the patient record. Consider the following:
   A. Have all less intrusive strategies been considered, attempted, and documented before staff violate patient confidentiality?
   B. Is this breach legal and defensible in a court of law?
   C. Is this breach absolutely necessary to achieve TB control activities?

III. See attached memo, dated November 14, 1995, from the California Department of Health Services Office of Legal Affairs on "Disclosure of Personal Information on Patients with Tuberculosis."

Planning & Implementing a Contact Investigation Improvement Project:

Conducting Tuberculosis Contact Investigations

Appendix 8: Notification of Index Cases and Contacts

I. Notification
   - A. Face-to-face
   - B. Telephone
   - C. Letter
     1. Appropriate method of notification when field or telephone interactions are not possible or are poor choices
     2. May result in unacceptable time delays, use as last resort
   - D. Index case notification of contact
     1. Index case initially notifies his/her contacts, rather than health department staff. Staff remain responsible for obtaining contact information and ensuring the contacts receive appropriate care
     2. May be used when an index case requests or insists that they notify the contacts
     3. Staff should contract with the index case to establish a time limit and method for contact notification

Planning & Implementing a Contact Investigation Improvement Project:

Conducting Tuberculosis Contact Investigations

Appendix 9: Interviewing Index Cases

I Face-to-face
- A. Good method to establish rapport, enlist cooperation, and comprehensively interview clients
- B. Index case interviews
  1. If index case infectious, interview patient outside. Wear appropriate respiratory protection
  2. Interviews in the home
     - a. Conduct interviews in home, when possible
     - b. When not interviewed at home, a home visit remains necessary
  3. Interviews at other sites
     - a. If not possible to conduct a timely home visit because:
       1) Patient hospitalized, incarcerated, etc.
       2) Patient's and staff's schedule conflict
     - b. In order to expedite a timely investigation conduct interview at a clinic, hospital, correctional facility, or any place convenient for patient
  4. When interviewed outside the home, conduct a follow-up home visit with the patient

Planning & Implementing a Contact Investigation Improvement Project:

Conducting Tuberculosis Contact Investigations

Appendix 10: Interviewing Contacts

I Face-to-face
- A. Good method to establish rapport, enlist cooperation, and comprehensively interview clients
- B. Contact interviews
  - 1. Interviews in the home
    - a. Conduct interviews in home or site of exposure when possible
    - b. When contact is not interviewed at home, a home visit should be conducted to a conducted to assess for additional contacts and unreported risk factors
  - 3. Interviewing at other sites
    - a. If it is not possible to conduct a timely home visit because:
      - 1) Contact hospitalized, incarcerated, etc.
      - 2) Contact and staff's schedule conflict
    - b. In order to expedite a timely investigation conduct interview at a clinic, hospital, correctional facility, or any place convenient for the contact
  - 4. When contact is interviewed outside the home, conduct a follow-up home visit with the patient

Planning & Implementing a Contact Investigation Improvement Project:

Policy and Procedures for Conducting Tuberculosis Contact Investigations

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Using the Data to Improve CIs

Lisa Pascopella, Martin Cilnis, Karen Lee Smith*, Krissy Vinup*, Jennifer Flood

CA Dept. Health Services TB Control Branch, Berkeley CA

**Formerly of Santa Clara TB Control Program, currently of Napa County*

Introduction

Contact investigations are necessary for effective TB control. TB control programs often do not have access to contact investigation (CI) information to monitor practice and evaluate areas for improvement.

A systematic approach to collecting, managing, analyzing, and using data in routine TB control program activities was implemented and assessed in Santa Clara County (SCC), CA in 2002-2004. This approach is referred to as the Contact Investigation Improvement Project (CIIP).

Objectives

- To describe processes that TB control programs may use to incorporate use of data in routine CI activities

- To evaluate CI outcomes before and after CIIP implementation using quantitative analyses

Methods

- Systems were developed to gather and store CI information. Data elements included those to enforce good practice; as well as those that allowed assessment of CI outcomes for high-priority contacts

- Field-staff were trained on use of data collection tools and on appropriate CI practice; routine trainings were held to reinforce CI skills, with emphasis on contacts having highest risk of infection and progression to disease.

Methods cont.

- Processes were developed to:
  - engage stakeholders in development of new data collection tools
  - ensure transfer of data from the field to the central TB program
  - perform quality control
  - generate useful summary and individual reports
  - share and disseminate CI data among stakeholders
- Data on completeness of CIs and on prioritization of contacts were presented at case conferences to correct CI practice in real-time

Methods cont.

- A quantitative evaluation of CI outcomes before (baseline) and after (comparison) CIIP implementation was conducted

- Contacts to a cohort of pulmonary TB cases reported in SCC from Feb. 1, 2000 thru Aug. 31, 2000 was designated the “baseline cohort”

- Contacts to a cohort of pulmonary TB cases reported in SCC from Sep. 1, 2002 thru Dec. 31, 2003 was designated the “comparison cohort”

Methods cont.

- Numbers and percents of cases and contacts with specific characteristics and CI outcomes were calculated and compared across cohorts

- CI outcomes for baseline and comparison cohorts were compared using Chi-square tests and their associated p-values

Using Data to Monitor and Improve Contact Investigations

Staff Requirements and Processes

Define data flow

CLINIC

Data collection forms

- CXR info.
- Treatment info.
- Other

Communication*

FIELD

- TST info.
- Contact demographics
- Contact risk factors
- Info. that allows prioritization
- Other

Data collection forms

To TB program

Staff

Data manager

- •Receives forms from clinic and field
- •Assesses accuracy and completeness
- •Follows up with appropriate staff to get updated information; clarifies questions
- •Disseminates reports from database to appropriate staff
- •May be a PHN Specialist, Epidemiologist, Program Supervisor

Data entry

- •Reviews and enters data into database
- •Generates reports
- •Communicates with data manager

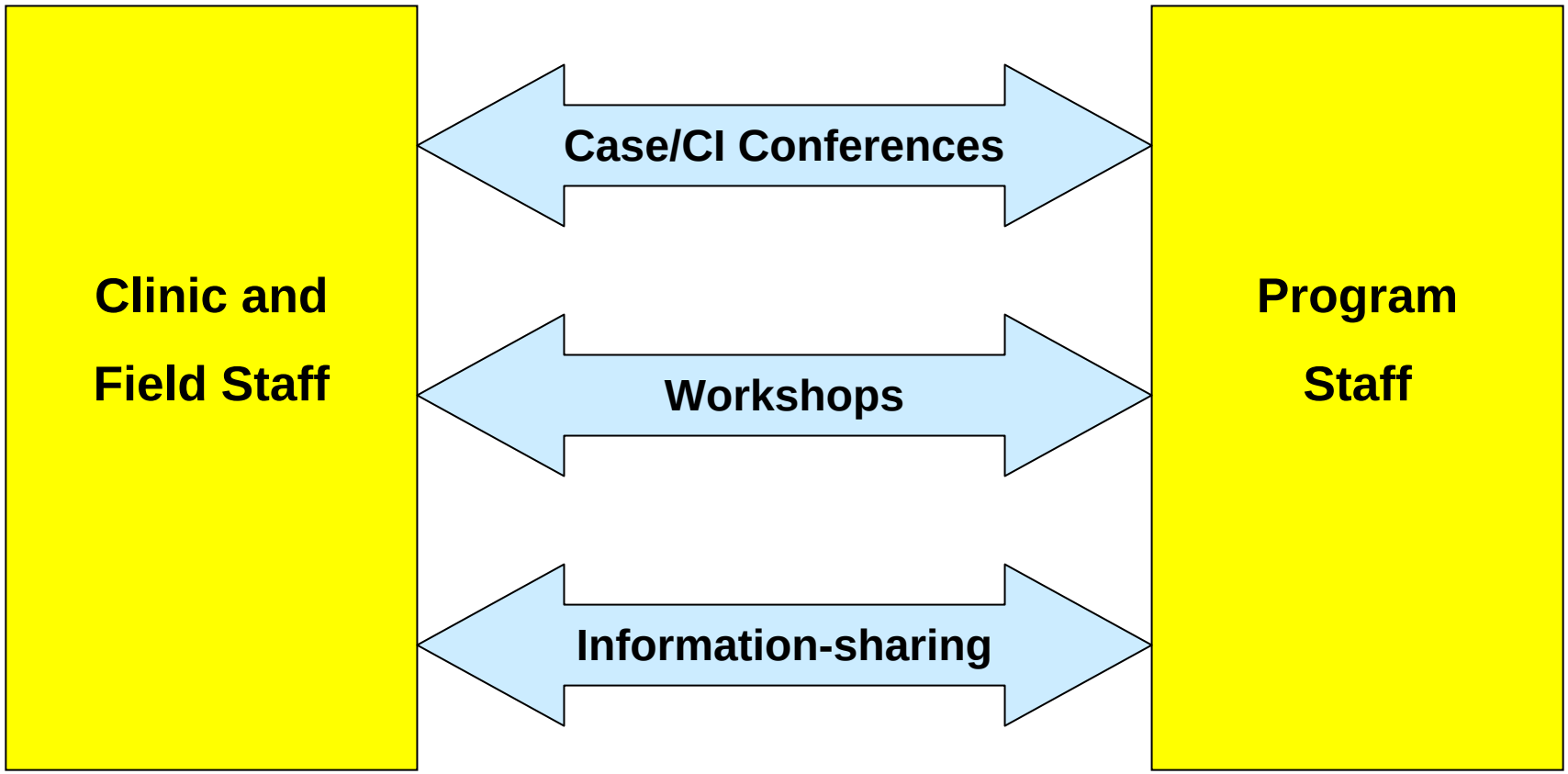
Epidemiologist

- •May serve as data manager or supervise data entry

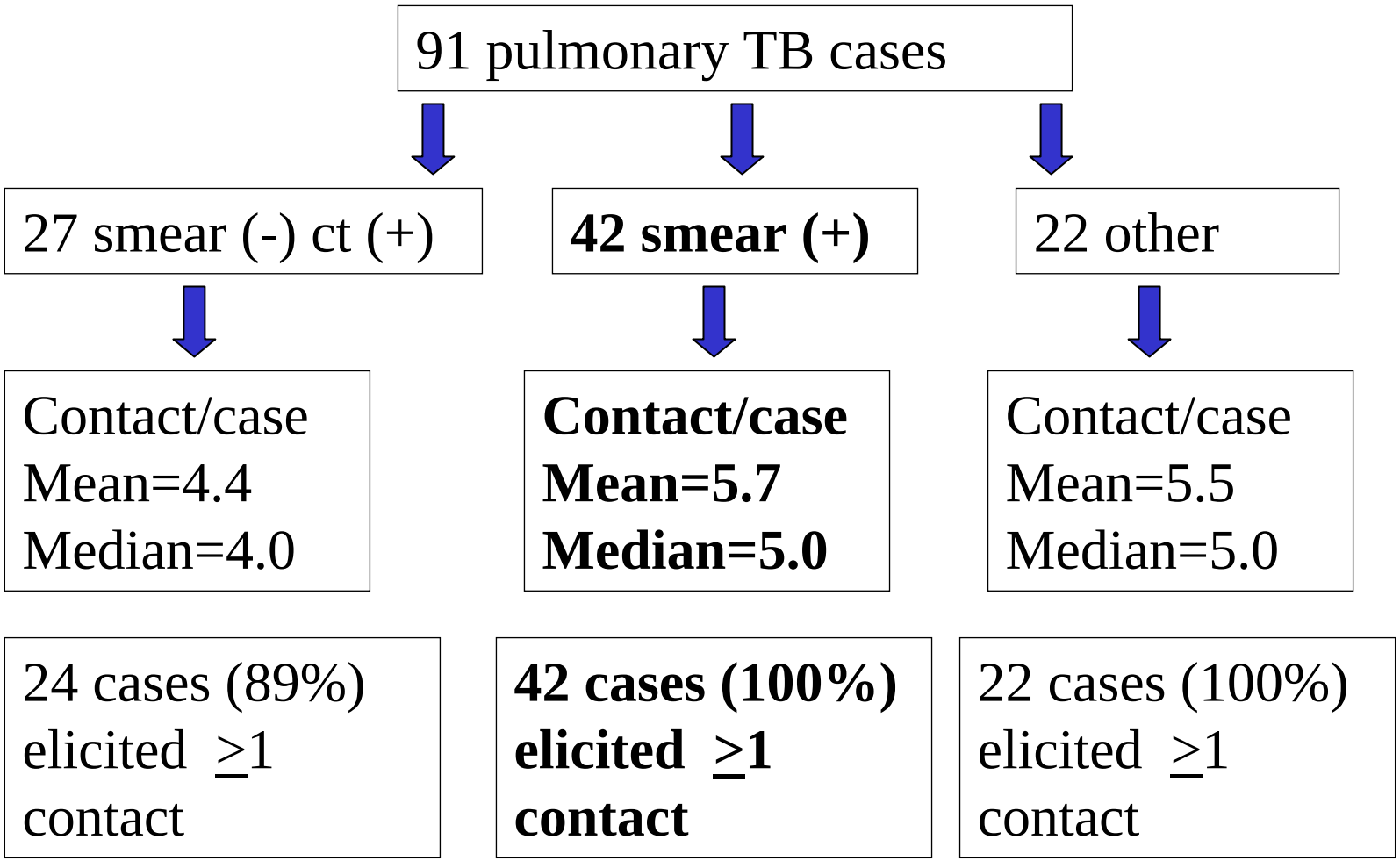
*Includes private provider communications

Processes to Share Data with Staff

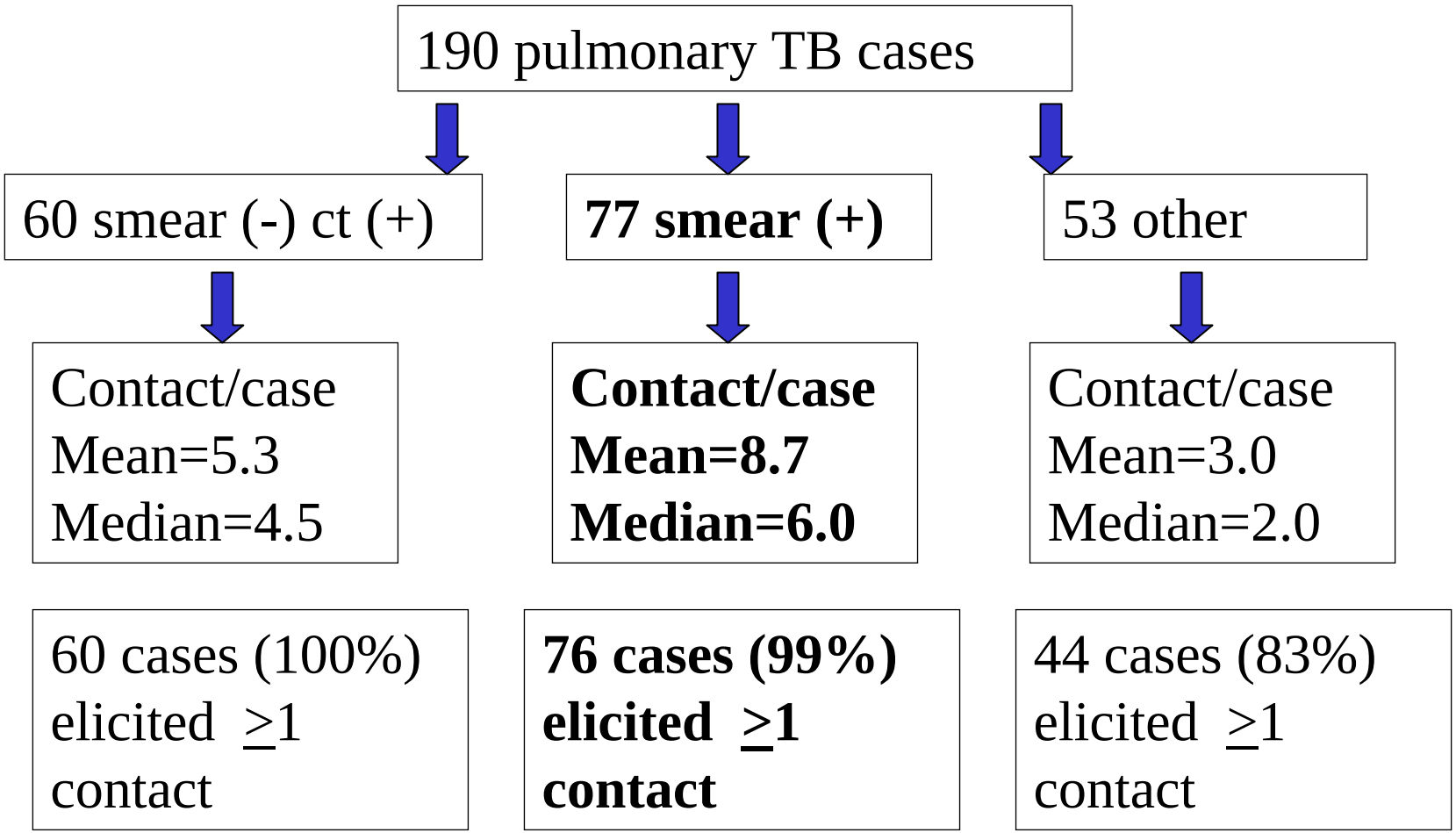
Implement Data-Driven Interventions



Contact Elicitation: Baseline cohort



Contact Elicitation: Comparison cohort



Completed Evaluation*

	Baseline	Comparison
All contacts (p-value<.05)	318/448 (71%)	926/1134 (82%)
High-risk contacts (p-value=.09)	38/53 (72%)	198/244 (81%)
Contacts to smear (+) /cavitary cases (p-value=.003)	275/385 (71%)	747/898 (83%)

*Evaluation=TST screening and complete medical evaluation

Evaluated contacts with LTBI

	Baseline	Comparison
All contacts	149/318 (47%)	379/926 (41%)
High-risk contacts	9/318 (3%)	69/926 (7%)
Contacts to smear (+) /cavitary cases	146/318 (46%)	346/926 (37%)

Initiated treatment for LTBI

	Baseline	Comparison
All contacts (p-value=0.7)	131/149 (88%)	338/379 (89%)
High-risk contacts	9/9 (100%)	41/42 (98%)
Contacts to smear (+) /cavitary cases (p-value=0.9)	133/146 (91%)	312/346 (90%)

Contacts completing treatment

	Baseline	Comparison
All contacts (p-value=0.4)	93/131 (71%)	225/338 (67%)
High-risk contacts (p-value=0.2)	9/9 (100%)	43/65 (66%)
Contacts to smear (+) /cavitary cases (p-value=0.6)	91/133 (68%)	197/312 (63%)

Summary

- CIIP implementation resulted in more extensive data collection and better use of data in CIs
- Emphasis on contacts with highest risk of infection and progression to disease contributed to greater rates of completion of contact medical evaluation
- Ongoing training of staff in CI practice contributed to improved outcomes
- Using data to inform communication among TB control program and field staff allowed identification of areas for further training to improve CI practice

Implications for CI practice

- Standardized systems to collect and use CI data facilitate improvement and assessment of CI practice
- Use of CI data to inform practice and to correct gaps in real-time requires the development of program processes and staff designated to perform:
  - Data management
  - Quality control
  - Routine communication among and between program and field staff (e.g. case/contact investigation conferences)
  - Ongoing training on best CI practice
- Improving treatment completion rates is challenging and warrants further investigation

Using Data to Monitor and Improve Contact Investigations

Staff Requirements and Processes

Define data flow

CLINIC

Data collection forms

- CXR info.
- Treatment info.
- Other

Communication*

FIELD

- TST info.
- Contact demographics
- Contact risk factors
- Info. that allows prioritization
- Other

Data collection forms

To TB program

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- •Generates reports
- •Communicates with data manager

Epidemiologist

- •May serve as data manager or supervise data entry

*Includes private provider communications

Interjurisdictional Tuberculosis Notification

Referring
Jurisdiction city _____ county _____ state _____ Date sent ____/____/____
Contact person_____ Phone ( ) _____ FAX ( )_____

☐ Verified case State reporting to CDC:_____ RVCT#_____(attach RVCT) ☐ Not reported_____
☐ Suspect case ☐ Close contact ☐ Reactor (LTBI) ☐ Convertor (LTBI) ☐ Source case investigation ☐ A/B Classified Immigrant

Patient name_____ Sex ☐ M ☐ F
Last First Middle

AKA_____

Date of birth ____/____/____ Interpreter needed? ☐ No ☐ Yes, specify language_____
New address _____ Hispanic ☐ No ☐ Yes
Number/Street/Apt.
Race ☐ White ☐ Black ☐ Asian
☐ Am.Indian/Nat.Alaskan.
_____ ☐ Other:_____
City/State/ZipCode

New telephone ( )_____ Date of expected arrival ____/____/____
New health provider ☐ Unknown ☐ Known (name, address, phone)_____
Emergency contact: Name_____ Phone ( )_____
Relationship_____

Clinical information for ☐ this referred case/suspect ☐ index case for this contact ☐ not applicable

Date of Collection	Specimen type	Smear	Culture	Susceptibility	Chest X-ray	Other

Site(s) of disease: ☐ Pulmonary ☐ Other(s) specify all_____
Date 1st negative smear ____/____/____ ☐ Not yet Date 1st negative culture ____/____/____ ☐ Not yet
TB skin test #1:Date ____/____/____ Result ____mm TB skin test #2: Date ____/____/____ Result____mm

Contact/LTBI Information **TB Skin test** ☐ Not Done
TST #1 Date ____/____/____ Result _____mm TST#2 Date _____/_____/_____ Result_____mm
CXR ☐ Not Done Date ____/____/____ ☐ Normal ☐ Other:_____
Last known exposure to index case ____/____/____ Place/intensity of exposure:_____

Medications ☐ this referred case/suspect ☐ this referred contact/LTBI

Drug	Dose	Start date	Stop date

Planned completion date ____/____/____
DOT ☐ No ☐ Yes: start date ____/____/____
☐ Daily ☐ 1x W ☐ 2x W ☐ 3x W
Last DOT Date _____/_____/_____
Adherence problems/significant drug side effects:
_____
_____
_____
Patient given _____ days of medication

Comments_____
_____
_____

For non-Class 3/5 referrals indicate if: ❒ Follow-up requested ❒ No follow-up requested

NTCA 3-2002

Interjurisdictional TB Notification Follow-up

☐ 30-day status: ☐ located ☐ not located
☐ Interim
☐ Final

Date Notification Received ____/____/____

Return follow-up form to:

Name _____ Fax number _____

Address _____ City _____ State _____ Zip Code _____

Jurisdiction _____ Phone number _____

Patient name_____ Date of birth ____/____/____
Last First M.I.

Sex ☐ Male ☐ Female

☐ **Case:** Indicate reason therapy stopped and outcome date ____/____/____

Send F/U2 to reporting jurisdiction RVCT#_____

☐ Completed

☐ Moved to: address _____

city_____ county_____ state_____

Telephone ( )_____

☐ Lost (after initially located) ☐ Never located ☐ Uncooperative or refused

☐ Not TB ☐ Died ☐ Other:_____

☐ **Suspect/Source Case Finding:**

☐ Verified* by lab ☐ Verified* by clinical definition

☐ Verified* by provider diagnosis ☐ Not verified

☐ Other:_____

*If verified, and referring jurisdiction will submit the RVCT, complete **Case** outcome above

☐ **Contact (send local contact form, if follow-up performed):**

☐ No follow-up performed ☐ Never located

☐ Evaluated: ☐ Class II ☐ Class III ☐ Class IV ☐ No infection

☐ Started treatment ☐ Continuing treatment

☐ Completed treatment ☐ Other:_____

☐ **LTBI/Convertors:**

☐ No follow-up performed ☐ Never located ☐ Started treatment

☐ Continuing treatment ☐ Completed treatment ☐ Other:_____

Comments:_____

Person completing form_____ Date completed ____/____/____

NTCA 5-2002

Binational Notification

Fax to: (619) 692-8020

Referring Jurisdiction _____ (City / County / State) Date sent ____/____/____

Contact person: _____ Phone ( ) _____ FAX ( ) _____

☐ Verified case State reporting to CDC: _____ RVCT# _____ ☐ Not reported INS A# _____

☐ Suspect case ☐ Close contact ☐ Immunocompromised ☐ Convertor (LTBI) ☐ Source case investigation

Patient name _____ (Paternal Last / Maternal Last / First / Middle) Sex ☐ M ☐ F

AKA: _____ Date of birth: ____/____/____

New address: _____ (Number/Street/Apt. / Colonia)

_____ (City/Municipio/State/ZipCode)

New telephone ( ) _____ Date of expected arrival ____/____/____

New health provider ☐ Unknown ☐ Known (name, address, phone) _____

_____

Emergency contact in US: Name _____ Phone ( ) _____

Relationship: _____

Emergency contact in Mexico: Name _____ Phone ( ) _____

Address: _____

Relationship: _____ Telephone located at: _____ (Residence, public phone, workplace, etc.)

Clinical information for: ☐ this referred case/suspect ☐ index case for this contact ☐ this contact ☐ not applicable

Site(s) of disease: ☐ Pulmonary ☐ Other(s) specify all _____

_____

DIAGNOSTIC AND FOLLOW-UP LABORATORY TESTS

Date of Collection	Specimen type	Smear	Culture	Susceptibility	Chest X-ray	Skin Test

Date	Other tests	Result

Medications ☐ this referred case/suspect ☐ this referred contact/LTBI

Drug	Dose	Start date	Stop date

Planned completion date ____/____/____

DOT ☐ No ☐ Yes: start date ____/____/____

☐ Daily ☐ 1x W ☐ 2x W ☐ 3x W

Last DOT Date ____/____/____

Adherence problems/significant drug side effects:

_____

_____

_____

Patient given _____ days of medication

Comments: _____

_____

_____

SOP 8.13.1, Supplement VI

Guidance on notification of confirmed and suspected active TB patients in the custody of U.S. Immigration and Customs Enforcement

Primary contacts:

1. Dr. Diana Schneider, Senior Epidemiologist
   Division of Immigration Health Services
   e-mail: Diana.Schneider@dhs.gov
   tel: 202-732-0070
   cell: 202-420-8150
   fax: 202-732-0095
2. LCDR Alice Fike, Nurse Epidemiologist
   Division of Immigration Health Services
   e-mail: Alice.Fike@dhs.gov
   tel: 202-732-0071
   fax: 202-732-0095

Recommended procedures for establishing continuity of TB therapy for patients identified with confirmed or suspected active TB and are in the custody of U.S. Immigration and Customs Enforcement:

1. **Ascertain from the detention facility whether the patient is officially in the custody of U.S. Immigration and Customs Enforcement (ICE); ascertain alien number (A#, see below)**
2. If the detention facility is not able to verify ICE custody, communicate with the above contacts at Immigration Health Services, who will try to ascertain custody status, and detention location if the patient is in official custody; please provide as much identifying information as possible, including A#, names, surnames, alias, date of birth, country of nationality, detention facility, etc.
3. For patients who are illegal aliens, in ICE custody, held in a detention or correctional facility that does not have an Immigration Health Services medical facility on site:
   3.1. Please send the following information to the above contacts:
   - **3.1.1. Patient's Alien number ("A number"); try to ascertain from detention facility (this will be an eight-or nine-digit number)**
   - 3.1.2. Patient's country of origin; try to ascertain from detention facility
   - 3.1.3. Identifying information [A number, name, alias (if applicable), birth date]
   - 3.1.4. Detention facility name & location where the detainee is currently held
   - 3.1.5. Surveillance information (copies of lab reports are not required)
   - 3.1.6. Cure TB, Binational Notification, or TB Net enrollment forms (if already enrolled)
   - 3.1.7. Name, address, country, and telephone number of a relative or contact in country of origin
   - 3.1.8. Name, address, and telephone number of a relative or contact in the U.S.

   3.2. Detention facilities: notify your local health department in accordance with local and state regulations
4. For patients who are illegal aliens, in ICE custody, held in an ICE detention facility or ICE contract detention facility that has an Immigration Health Services medical facility on site:
   4.1. Communicate with/share case information with the Division of Immigration Health Services (DIHS) health care providers at the detention facility medical clinic
   4.2. It is not necessary to notify Dr. Schneider of TB cases adequately coordinated with Immigration Health Services medical personnel at the facility
   4.3. Contact Dr. Schneider with any additional concerns
5. Division of Immigration Health Services personnel do not have authority to facilitate continuity of care for patients who are not officially in ICE custody

Updated August 7, 2006

INTERNATIONAL TUBERCULOSIS NOTIFICATION FORM

TO: ***Health Officer, Physician, or Tuberculosis Control Personnel of:***

Country	Province	District	City or Village

The individual named below has **active tuberculosis** and started on treatment in the USA, but he or she **has not completed treatment**. This form is to notify you so that treatment can be completed. Thank you very much for your cooperation.

Tuberculosis Patient's Name:_____

Date of Birth:_____ Place of Birth:_____ Sex:_____

This patient informed us that he/she was going to the following location:

Patient's Address	
City or village	
District, Province	
Country	
Telephone if available	
Contact person at this location	

If you have any questions, contact the following person who treated this patient before his or her departure from the United States:

Name	
Address	
City, State, Zip Code	
Phone, fax, email	

CLINICAL INFORMATION

1. Date of diagnosis of current illness _____

2. This illness is a: [ ] New Case [ ] Relapsed Case (check one)

If relapsed case, describe the patient's prior history of tuberculosis and treatment.

3. Site(s) of disease: [ ] Pulmonary [ ] Extra-pulmonary (specify)_____

4. Initial and most recent laboratory and radiographic test results (sputum or other smears, cultures, susceptibility results, and radiographs)

Date	Test	Result

5. Current Medications and Starting Dates

Drug and dose	Start Date
1.	
2.	
3.	

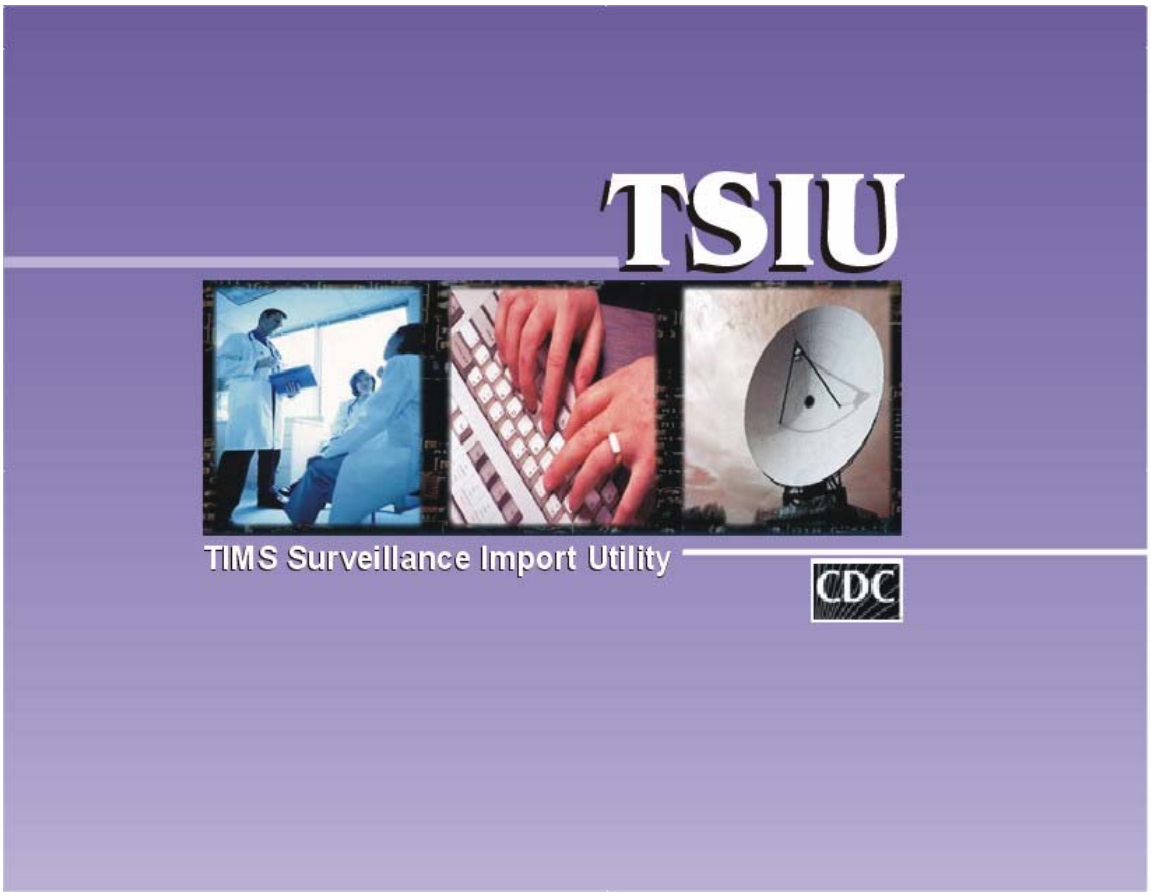
Drug and dose	Start date
4.	
5.	
6.	

6. Treatment Plan. Our treatment plan for this patient is specified below. This may differ from TB treatment in your country. ***Please insure this patient completes a full course of treatment***.

Drug and dose	Stop Date
1.	
2.	
3.	

Drug and dose	Stop date
4.	
5.	
6.	

7. Any Other Comments



TIMS Surveillance Import Utility (TSIU) "How To" Guide

Version 1.2 (Beta)
March 2003

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Center for HIV, STD and TB Prevention
Division of Tuberculosis Elimination

TABLE OF CONTENTS

TIMS Surveillance Import Utility "How to" Guide

1. Introduction

The TIMS Surveillance Import Utility (TSIU) was developed because TIMS sites wanted the ability to import surveillance data into the TIMS database from their local proprietary information management systems. The current beta version of TSIU will only import at the Reporting Area Level into the TIMS database, therefore creating TIMS records that are owned by the Reporting Area.

Sites must create an import file by exporting data out of their own system into one of the file formats described in Appendix A. TSIU import will include Month-Year Reported 1999, and later, surveillance data.

TSIU will check imported surveillance records against the 350+ TIMS validations ("Validate" option), and the option to connect to the TIMS database and to import records passing the validations ("Validate and Assimilate" option). Summary and detail reports provide information on how many and which types of records were processed, which records were rejected and why, which were accepted/imported, and which were processed for deletion.

Users are encouraged to use the validate option to check the accuracy of the surveillance data in the import file and make the necessary corrections in their own system. It is the responsibility of the users to maintain the accuracy and consistency of the surveillance data in both the reporting area's own system and TIMS. The site must manage deletions and transmissions of assimilated records through the TIMS application to the Centers for Disease Control and Prevention (CDC).

2. Installation

Installation of TSIU requires that TIMS 1.2 be installed on the PC you are going to use for TSIU. TSIU also requires the following ODBC drivers to be installed:

- Microsoft Text Driver (*.txt, *.csv)
- Microsoft Excel Driver (*.xls)

You may verify that these drivers are installed by checking for the drivers in the Control Panel's **ODBC Data Source Administrator** under the **Drivers** tab.

Installation of TSIU will perform the following:

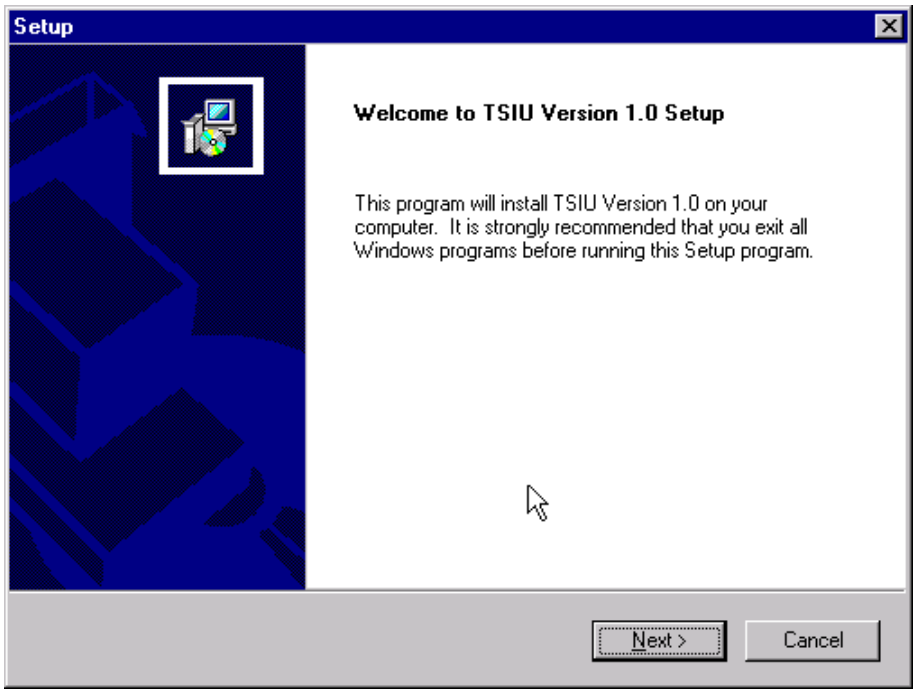
- Setup creates a directory **Import** under **C:\TIMS** and copies all application related files to this directory.
- Setup creates an entry **TSIU 1.2** on the Start Menu under **Start/Programs/TIMS**.
- Setup creates an empty TSIU Beta Database for importing data.
- Setup creates two icons on the desktop **TSIU.reg** and **TIMSPROD.reg**. These two files are registry files that will point the TIMS program to either your current production database (**TIMSPROD.reg**) or the newly created TSIU Beta Database (**TSIU.reg**).

2.1 How to Install TSIU

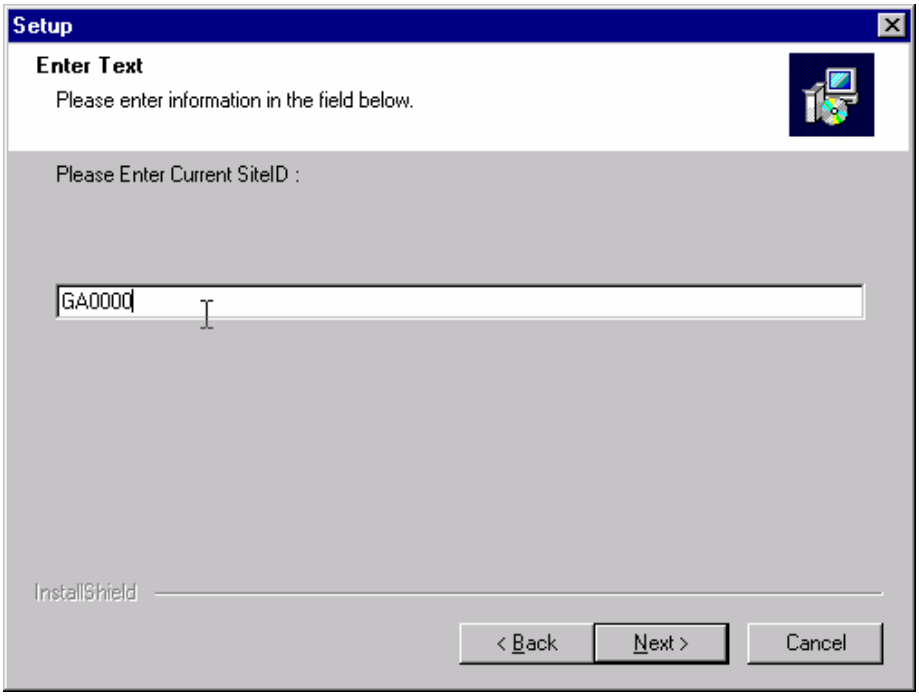
1. Exit the TIMS application and close all open applications.
2. Insert the TSIU Installation CD into the CDROM drive.
3. The TSIU Setup program should start automatically. If it does not, go to Start, Run and enter E:\Setup.exe (where E: is the CDROM drive letter).

TIMS Surveillance Import Utility "How to" Guide

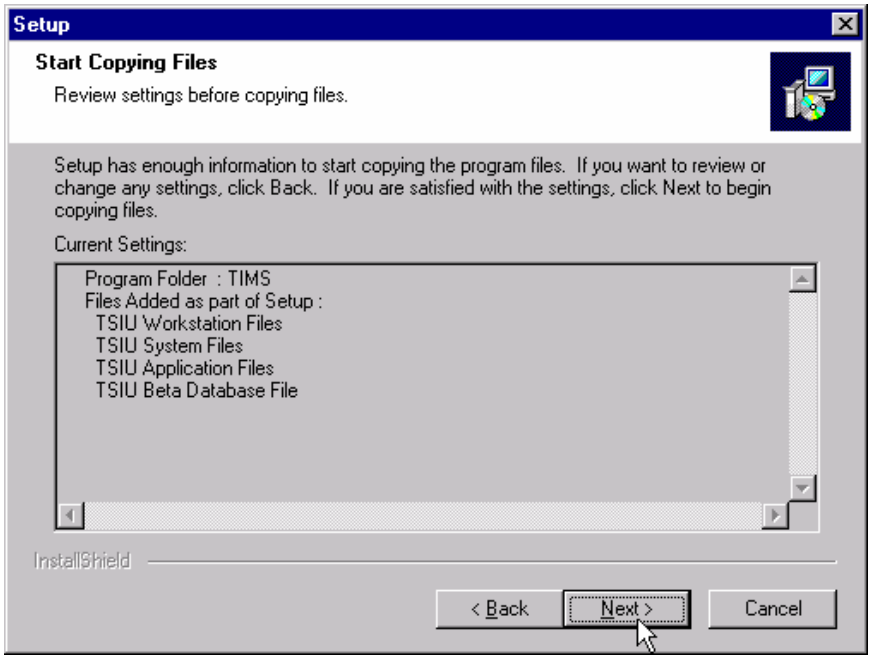
4. The first screen to appear is the setup Welcome screen. If you want to continue, click "Next>". If not, click "Cancel" to exit the program.



5. Next, enter the SiteID. Click "Next>" to proceed.



6. The Copying Files screen will appear. The setup program is now ready to copy all the program files to the workstation hard disk. Click "Next>" to proceed.

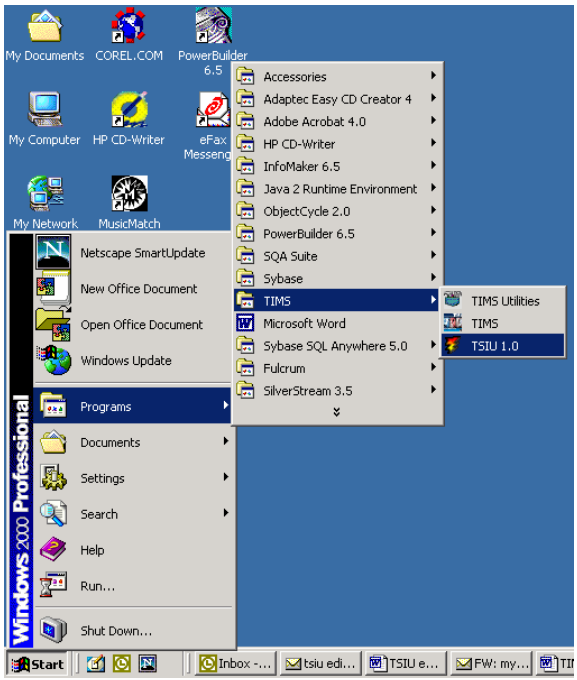


7. TSIU is now installed.

3. Using TSIU

3.1 How to Access TSIU

TSIU is located in the TIMS folder and may be accessed by selecting **Programs**, **TIMS**, then **TSIU 1.2** from the **Start** menu.



3.2 How to Process a File

Before processing a file the user must create an import file from the user's own system in accordance with the specifications in Appendix A. The user may choose to either Validate or Validate and Assimilate the records in an import file.

3.2.1.1 Validate

Any user may validate records in an import file without access to the TIMS database. The validation process performs all TIMS validation checks and calculations and generates validation results.

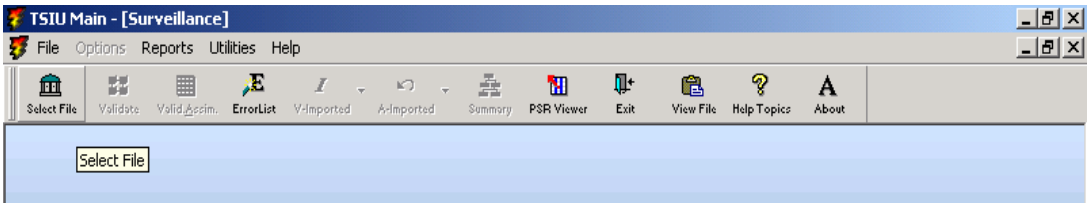
It is strongly recommended that the user correct the data in the user's own system and then create a new import file. If changes are made to the import file rather than in he user's own system, users risk introducing data discrepancies between the user's own system and TIMS. The next time an import file is generated from the user's own system, errors, which were corrected previously, will be need to be corrected again.

3.2.1.2 Validate and Assimilate

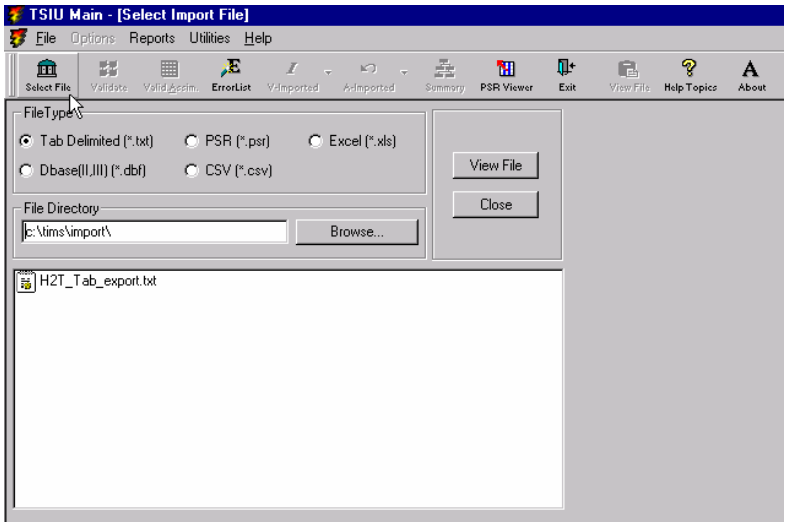
Only a TIMS system administrator may choose the Validate and Assimilate option. The validation and assimilation process requires an existing TIMS database. The process performs all TIMS validation checks and calculations, assimilates all eligible records into the TIMS database and generates assimilation results. Only records that pass all validations are eligible for assimilation into the TIMS database.

3.2.2 Steps to Select a File to Import

1. Click on Select File icon from the TSIU menu bar.



The Select Import File window will appear. The default directory will be displayed.

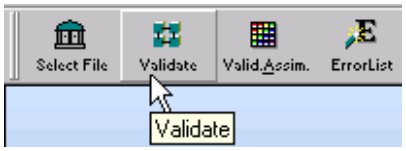


2. Select the File Type of the import file and the available files of that type are displayed in the file list. See Appendix A for file type descriptions.
3. Select the Browse button to choose another directory, if necessary.

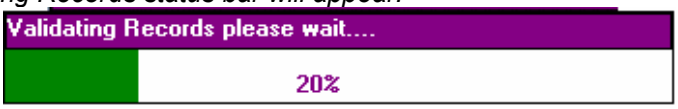
4. Select the file to import from the file list by double clicking on the file. The file chosen should now appear in the File Directory listing.
5. Click the Accept button and the user is returned to the TSIU main window.

3.2.3 Steps to Validate a File

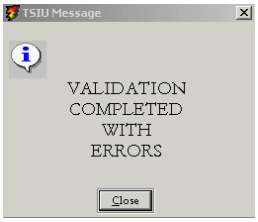
1. Select a File following the steps outlined in **Steps to Select a File to Import**
2. Click the Validate button,



The Validating Records status bar will appear.



You will either receive
a successful TSIU Message box OR an unsuccessful TSIU Message box.

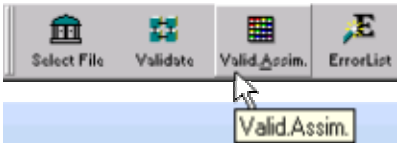


*** Viewing reports outlined in section 3.3 will provide specific information regarding the validation errors.**

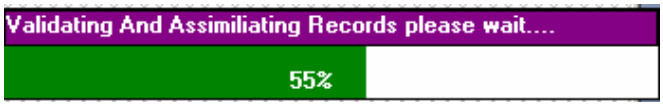
3. Click the Close button.

3.2.4 Steps to Validate and Assimilate a File

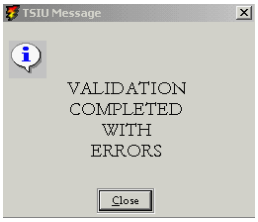
1. Select a File following the steps outlined in **Steps to Select a File to Import**
2. Click the Valid Assim button,



The Validating and Assimilating Records status bar will appear.



You will either receive
a successful TSIU Message box OR an unsuccessful TSIU Message box.



*** Viewing reports outlined in section 3.3 will provide specific information regarding the validation errors.**

3. Click the Close button.

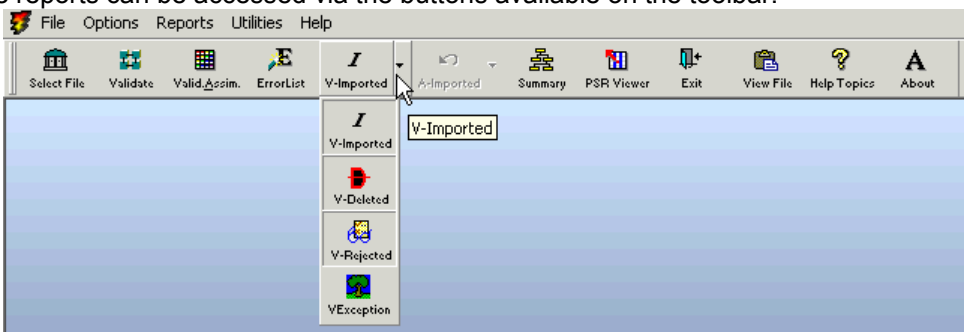
3.3 How to View Reports

3.3.1 Types of Reports

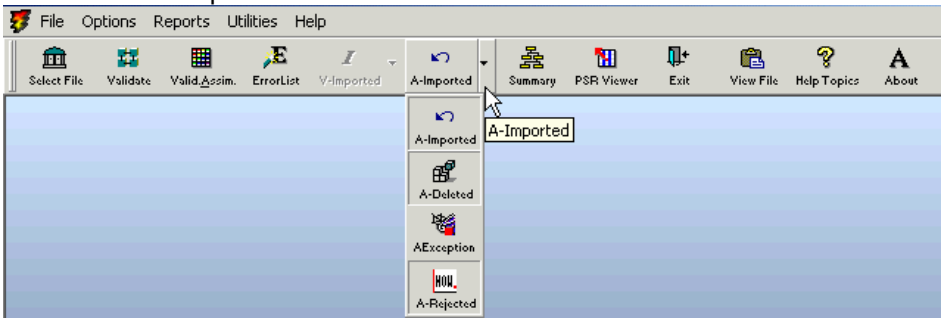
TSIU generates the following reports:

- Error List Report
- Processed Records Summary Report
- Rejected Records Report
- Accepted Records Report (Validate) or Imported Records Report (Validate and Assimilate)
- Deleted Records Report
- City/County Exception Report

The Validate reports can be accessed via the buttons available on the toolbar.



The Validate and Assimilate reports can be accessed via the buttons available on the toolbar.

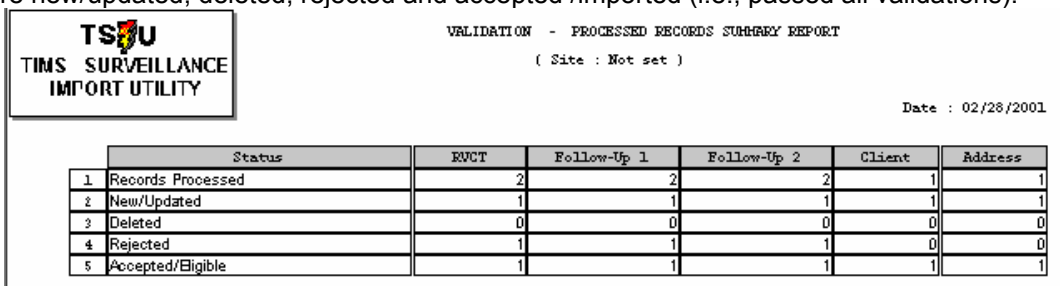


3.3.1.1 Error List Report

A detailed report that lists all validation checks with corresponding error codes. The user should print out the error list report prior to examining the rejected records report. By matching the error coded in the rejected records report to the codes found in the error list, users can determine what data needs to be corrected in the user's own system. This error list is also provided in Appendix C.

3.3.1.2 Processed Records Summary Report

A summary report will be generated following each Validate or Validate and Assimilate process. This report displays the number of records that were processed, and how many of each type were new/updated, deleted, rejected and accepted /imported (i.e., passed all validations).



TSIU
TIMS SURVEILLANCE IMPORT UTILITY

VALIDATION - PROCESSED RECORDS SUMMARY REPORT

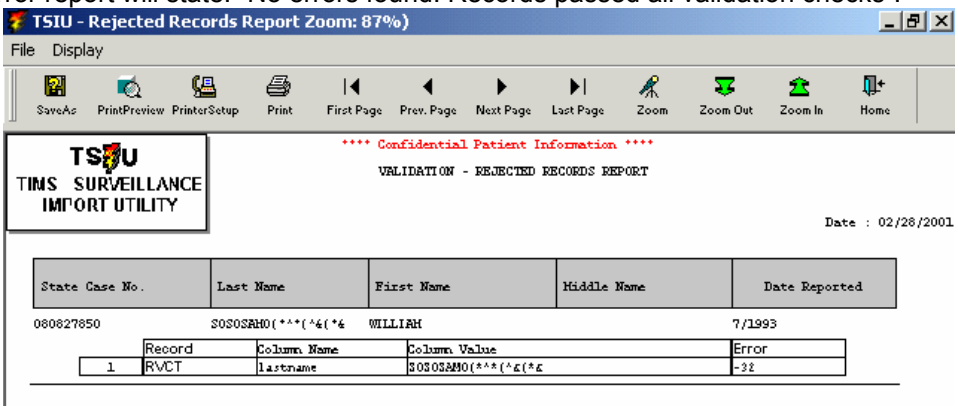
(Site : Not set)

Date : 02/28/2001

	Status	RVCT	Follow-Up 1	Follow-Up 2	Client	Address
1	Records Processed	2	2	2	1	1
2	New/Updated	1	1	1	1	1
3	Deleted	0	0	0	0	0
4	Rejected	1	1	1	0	0
5	Accepted/Eligible	1	1	1	1	1

3.3.1.3 Rejected Records Report

Records that do not pass all validations will be rejected and listed in the Rejected Records Report. This detailed report will include a header containing each client's State Case Number, Last Name, First Name, Middle Name and Month-Year Reported followed by a detailed listing of which surveillance records (RVCT, Follow-Up 1 and Follow-Up 2) failed and why. If no errors are found, the error report will state: "No errors found. Records passed all validation checks".



TSIU - Rejected Records Report Zoom: 87%)

File Display

SaveAs PrintPreview PrinterSetup Print First Page Prev. Page Next Page Last Page Zoom Zoom Out Zoom In Home

TSIU
TIMS SURVEILLANCE IMPORT UTILITY

**** Confidential Patient Information ****

VALIDATION - REJECTED RECORDS REPORT

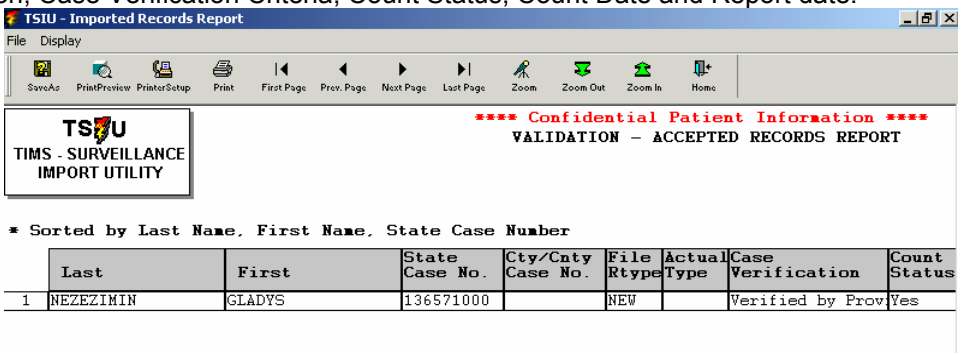
Date : 02/28/2001

State Case No.	Last Name	First Name	Middle Name	Date Reported
080827850	SOSOSAMO(*^*(^&(*&	WILLIAH		7/1993

	Record	Column Name	Column Value	Error
1	RVCT	lastname	SOSOSAMO(*^*(^&(*&	-32

3.3.1.4 Accepted/Imported Records Report

Records that pass all validations and are eligible for assimilation into the database will be written to the Accepted Records Report. This detailed report will include Last Name, First Name, State Case Number, City/County Case Number, Import File Record Type, Actual Type after Assimilation, Case Verification Criteria, Count Status, Count Date and Report date.



TSIU - Imported Records Report

File Display

SaveAs PrintPreview PrinterSetup Print First Page Prev. Page Next Page Last Page Zoom Zoom Out Zoom In Home

TSIU
TIMS - SURVEILLANCE IMPORT UTILITY

**** Confidential Patient Information ****

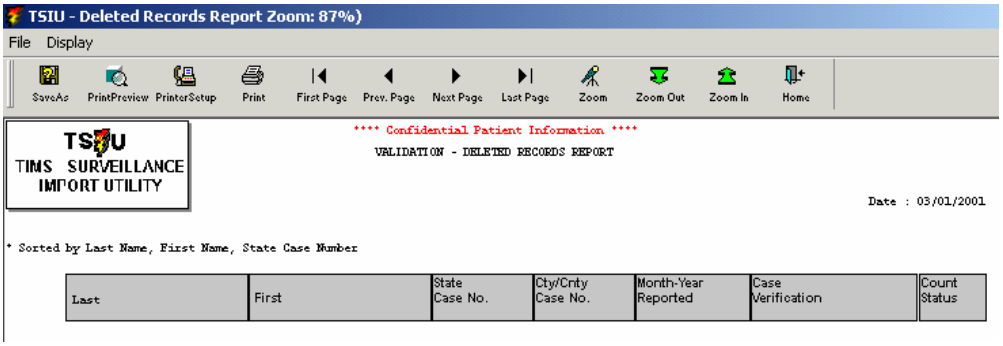
VALIDATION - ACCEPTED RECORDS REPORT

* Sorted by Last Name, First Name, State Case Number

	Last	First	State Case No.	Cty/Cnty Case No.	File Rtype	Actual Type	Case Verification	Count Status
1	NEZEZIMIN	GLADYS	136571000		NEW		Verified by Prov	Yes

3.3.1.5 Deleted Records Report

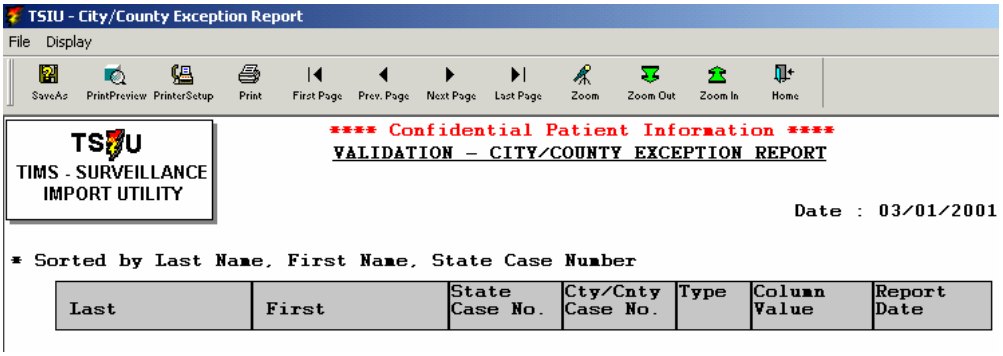
The Deleted Records Report displays each imported record marked for deletion. This detailed report will include Client's first and last name, State Case Number, Local Case Number, Month-Year Reported, Case Verification and Count Status. The report will also remind the user to delete records in TIMS using the normal TIMS deletion process.



3.3.1.6 City / County Exception Report

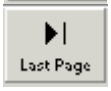
Each Reporting Area based system may have used a different spelling for cities and counties than are currently used in TIMS. As a result, records exported from a Reporting Area system may fail the TSIU validation checks on city and county. During the assimilation of these records, if a matching city or county value is not found and no other validation check fails, the record will be assimilated into the TIMS database with the value of "City not Specified" or "County not Specified" respectively.

The City/County Exception Report provides a listing for each record that was imported into the TIMS database with values of "City not Specified" or "County not Specified". The report lists each record by Last name, First name, State Case Number, City/County Case Number, Type (which field had the non-matching city or county value), the column value that was supplied in the import file and Month-Year Reported. Users can examine the report and decide if the records need to be manually updated in TIMS with the correct city or county name, or if a change to the city and county list is warranted in the Reporting Area System.



3.3.2 Navigating Reports

You can move through multiple page reports by clicking on any of the navigational buttons in the toolbar.

Button	Direction
	The First Page button enables you to go directly to the first page of the report.
	The Previous Page button enables you to move to the consecutive previously viewed page of the report.
	The Next Page button enables you to move to the next consecutive page of the report.
	The Last Page button enables you to go directly to the very last page of the report.

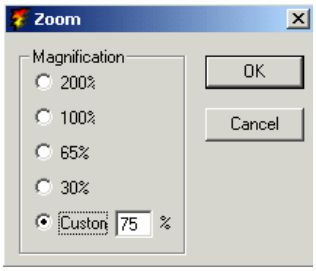
3.3.2.1 Zoom

You may also adjust the visibility of your report by using the zoom feature.

To adjust visibility…

1. Click the Zoom button on the toolbar.

   The Zoom window will appear.



2. Select one of the preset magnifications or select Custom and enter a numerical value.
3. Click OK.

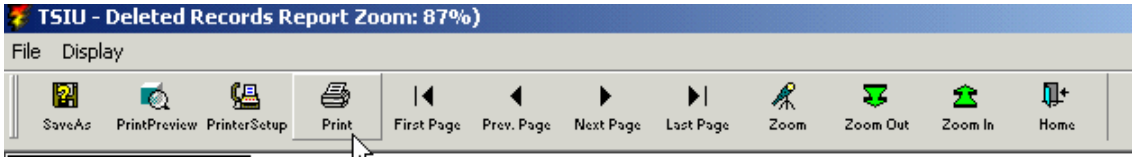
You may also 'Zoom In' to get a close up view of your report or 'Zoom Out' to see more of the page at a reduced size. Either button can be clicked numerous times to achieve the desired effect.

3.3.2.2 Printing Reports

Any report can be printed using the print option.

To print a report…

1. Click the Print icon from the menu bar on the report.



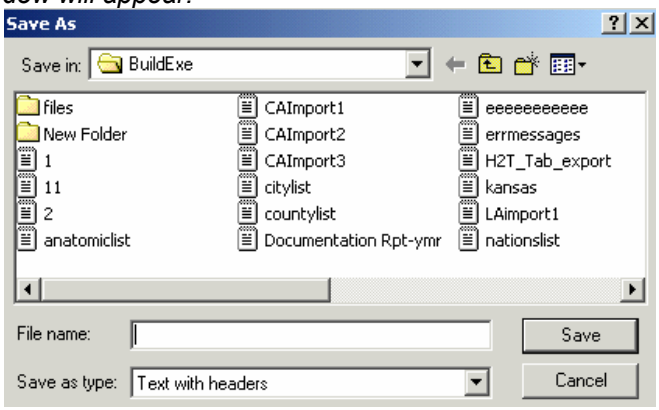
3.3.2.3 Saving Reports

Any report can be saved electronically by using the Save As option. Saving the report is useful when referencing reports for comparison.

To save a report…

1. Click the Save As icon from the menu bar on the report.

The Save As window will appear.



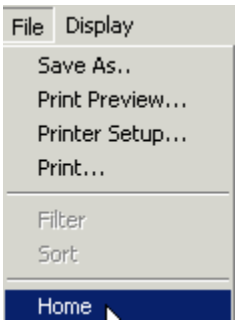
2. Select the directory from the Save in drop down text box or create one by clicking the new folder icon to the right.
3. Enter a report name in the File name field.
4. Click the Save button.

The report is now saved and can be accessed in the future.

3.3.2.4 Close Reports

To exit a report…

1. Select File from the menu bar.
2. Click Home.



Or

- Click the Home button on the toolbar.

The Report will close.

Appendix A. TSIU Import File Specification

The user must create a formatted input file according to the TSIU import file structure as outlined below. This import file contains all Client, RVCT, Follow-Up 1 and Follow-Up 2 information that is to be imported into TIMS. The file may be one of the following formats:

TXT	A tab delimited text file with no header information.
CSV	A comma separated text file with header information.
XLS	An Excel derived file with header information.
PSR	A Power Soft Report file with no header information.
DBF	A Dbase III or IV file with header information.

The TIMS record types populated during import are Client, Address (reporting only), RVCT, Follow-Up 1, and Follow-Up 2. User-Defined Fields (UDVs) will not be populated.

A.1. Record Format

Records must contain all the columns as specified in the import file structure below. Although data does not have to occupy each column, columns containing data must match the format specifications stipulated. Records that are improperly formatted, do not contain all the columns, or are missing information from the required fields will be rejected during the validation process. Each record must contain State Case Number, Month-Year Reported, Birth Date, Unknown Birth Date Flag, First Name and Last Name.

A.2. Status Codes

Records imported with a value of 'D' will be marked for deletion in the TIMS database. Users must follow the TIMS deletion process to remove the record(s) from the database, including data transfer and acknowledgement of deleted records to the CDC.

A.3. Record Uniqueness

Record uniqueness is based on a combination key consisting of the State Case Number and Month-Year Reported. During Validate, uniqueness is checked only against the records in the import file generated from the Reporting Area system. During Validate and Assimilate, in addition to a check for uniqueness within the import file, there is a uniqueness check on the records in the TIMS database.

If two records exist in the import file with the same State Case Number and the same Report Year, these records will both be rejected as duplicates.

If there is a record in the TIMS database with the same State Case Number and Report Year, but different month as a record in the import file, the record in the import file will be rejected as a duplicate record.

If there is a record in the TIMS database with the same State Case Number and Month-Year Report date as a record in the import file the record in the TIMS database will be updated with the information from the record in the import file.

If a record's State Case Number or Month-Year Reported needs to be changed, prior to importing the record with the new values, the existing record in the TIMS database needs to be processed as a TIMS deletion, including marking the record for deletion, transferring, if needed, the deleted record and purging the record once the acknowledgement of the deletion is received from CDC.

A.4. Reporting Race

Statistical Policy Directive No.15, Race and Ethnic Standards for Federal Statistics and Administrative Reporting required a change to the data collection of race. Specifically, Asian or Pacific Islander category has been separated into two different categories, **Asian** and **Native Hawaiian or other Pacific Islander**, more than one race may be reported and extended HL7

codes are collected for the two new categories. Due to transition issues related to keeping historical data, implementing this reporting change and MMWR reporting, TSIU has been modified to include both the original Race fields along with the new Race collection fields. The new fields are located at the end of the input file after the Follow-up 2 data. Data collected in the original format will be translated by the utility into the new format before inputting data into TIMS. Corresponding errors messages and validation checks are also in place.

A.5. Import File Structure

Each record to be imported should be one row of data containing all of the following data items with the specified order below being from left to right.

Q#	Common Name	Description	Usage
Q000.1	Record Type	Data Transfer record type	Length: 1, Blank, D=Deleted, N=New, U=Updated
Q000.2	Social Security #	Social Security #:	Length: 9, Format: #########
Q000.3	Last Name	Last Name:	Length: 35, Description Item
Q000.4	First Name	First Name:	Length: 30, Description Item
Q000.5	Middle Name	Middle Name:	Length: 20, Description Item
Q01	State	Q1. State Reporting:	Length: 2, Format: XX, Label stored in the State Table, Two character code for the selected State
Q02a	***State Case Number***	***Q2a. State Case Number:***	***Length: 9, Format: XXXXXXXXX, Unique to the reporting site***
Q02b	***Local Case Number***	***Q2b. City/County Case Number:***	***Length: 9, Format: XXXXXXXXX, Unique to the data entry site***
Q03	Date Submitted	Q3. Date Submitted:	Length: 8, Format: yyyymmdd or Blank (Unknown)
Q03	Date Submitted Unknown	Indicates if Q3. Date Submitted: is Unknown	Length: 1, 0/Null=Not Unknown, 1=Unknown
Q04a	City	Q4a. Address for Case Counting: City	Length: 21, List of appropriate cities for reporting area.
Q04b	City Limits	Q4b. Address for Case Counting: Within City Limits	Length: 1, 1=Yes, 2=No, 9=Unknown.
Q04c	County	Q4c. Address for Case Counting: County	Length: 21, List of appropriate counties for reporting area.
Q04d	Zip Code	Q4d. Address for Case Counting: Zip Code	Length: 5, Format: #####
Q04e	Zip Code Suffix	Q4e. Address for Case Counting: Zip Suffix	Length: 4, Format: ####
Q05	***Report Date***	***Q5. Month-Year Reported:***	***Length: 8, Format: yyyymm01***

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Q#	Common Name	Description	Usage
Q06	Count Date	Q6. Month-Year Counted:	Length: 8, Format: yyyymm01 or Blank (Unknown)
Q06	Count Date Unknown	Indicates if Q6. Month-Year Counted: is Unknown	Length: 1, 0/Null=Not Unknown, 1=Unknown
Q07	Birth Date	Q7. Date of Birth:	Length: 8, Format: yyyymmdd or Blank (Unknown).
Q07	Birth Date Unknown	Indicates if Q7. Date of Birth: is Unknown	Length: 1, 0/Null=Not Unknown, 1=Unknown.
Q07.1	Age	Age:	Length: 3, Format: #, ##, or ###, 1, 01, or 001 through 115, Can either be manually entered if Client's Date of Birth = Unknown or it is calculated using the Current Date and Client's Date of Birth
Q08	Client's Sex	Q8. Sex:	Length: 1, 1=Male, 2=Female, 9=Unknown
Q09a	Client's Race	Q9a. Race:	Length: 1, 1=White, 2=Black, 3=American Indian/Alaskan Native, 4=Asian/Pacific Islander, 9=Unknown.
Q09b	Asian Race	Q9b. Race: Specify:	Length:1, Asian (I)ndian, (B)Cambodian, (C)hinese, (Z)Chuukese, (F)ilipino, (G)uamanian, (H)awaiian, (N)Indonesian, (J)apanese, (K)orean, (L)aotian, (M)arshallese, (P)alauan, (X)Pohnpeian, (W)Saipanese, (S)amoan, (V)ietnamese, (Y)apese, (O)thr, (U)nk
Q10	Ethnic	Q10. Ethnic Origin:	Length: 1, 1=Hispanic, 2=Not Hispanic, 9=Unknown
Q11a	US Citizen	Q11a. Country of Origin: If U.S., check here	Length: 1, 0/Null=Not US, 1=US, 9=Unknown.
Q11b	Nation	Q11b. Country of Origin: If not U.S., enter country code	Length: 3, Format: ###, Label stored in the Nation Table
Q12	Date Entered U.S.	Q12. Month-Year Arrived in US:	Length: 8, Format: yyyymm01 or Blank (Unknown)
Q12	Date Entered U.S. Unknown	Indicates if Q12. Month-Year Arrived in US: is an Unknown or Partial Date	Length: 1, 0/Null=Not Unknown, 1=Unknown, 2=Partial
Q13	Diagnosis Status	Q13. Status at Diagnosis of TB:	Length: 1, 1=Alive, 2=Dead, 9=Unknown
Q14a	Previous TB	Q14a. Previous Diagnosis of Tuberculosis:	Length: 1, 1=Yes, 2=No, 9=Unknown.
Q14b	Previous Year	Q14b. Previous Diagnosis of Tuberculosis: If yes, list year of previous diagnosis	Length: 8, Format: yyyy0101 or Blank (Unknown)
Q14b	Previous Year Unknown	Indicates if Q14b. If yes, list year of previous diagnosis: Unknown	Length: 1, 0/Null=Not Unknown, 1=Unknown

Race items will remain in version 1.2 and will be converted to new data collection fields automatically

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Q#	Common Name	Description	Usage
Q14c	Previous TB Again	Q14c. Previous Diagnosis of Tuberculosis: If more than one previous episode, check here	Length: 1, 1=Yes, 9=Unknown.
Q15a	Major Site	Q15a. Major Site of Disease:	Length: 2, Format: ##, 00=Pulmonary, 10=Pleural, 21=Lymphatic:Cervical, 22=Lymphatic:Intrathoracic, 23=Lymphatic:Other, 29=Lymphatic:Unknown, 30=Bone and/or Joint, 40=Genitourinary, 50=Miliary, 60=Meningeal, 70=Peritoneal, 80=Other, 90=Site not Stated.
Q15b	Major Other Disease	Q15b. Major Site of Disease: If site is Other, enter anatomic code	Length: 2, Format: ##, Label stored in the Anatomic Table
Q16a	Additional Site	Q16a. Additional Site of Disease:	Length: 22, Format: #####…, where every 2 digits is one of the following codes: 00=Pulmonary, 10=Pleural, 21=Lymphatic:Cervical, 22=Lymphatic:Intrathoracic, 23=Lymphatic:Other, 29=Lymphatic:Unknown, 30=Bone and/or Joint, 40=Genitourinary, 50=Miliary, 60=Meningeal, 70=Peritoneal, 80=Other
Q16b	Additional Other	Q16b. Additional Site of Disease: If site is Other, enter anatomic code	Length: 2, Format: ##, Label stored in the Anatomic Table
Q16c	Additional More	Q16c. Additional Site of Disease: If more than one additional site check here:	Length: 1, 1=Yes
Q17	Sputum Smear	Q17. Sputum Smear:	Length: 1, 1=Positive, 2=Negative, 3=Not Done, 9=Unknown
Q18	Sputum Culture	Q18. Sputum Culture:	Length: 1, 1=Positive, 2=Negative, 3=Not Done, 9=Unknown
Q19a	Microscopic Exam	Q19a. Microscopic Exam of Tissue and Other Body Fluids:	Length: 1, 1=Positive, 2=Negative, 3=Not Done, 9=Unknown
Q19b	Microscopic Anat. 1	Q19b. Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic code(s)	Length: 2, Format: ##, Label stored in the Anatomic Table
Q19c	Microscopic Anat. 2	Q19c. Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic code(s)	Length: 2, Format: ##, Label stored in the Anatomic Table
Q20a	Other Culture	Q20a. Culture of Tissue and Other Body Fluids:	Length: 1, 1=Positive, 2=Negative, 3=Not Done, 9=Unknown
Q20b	Culture Anat. 1	Q20b. Culture of Tissue and Other Body Fluids: If positive, enter anatomic code(s)	Length: 2, Format: ##, Label stored in the Anatomic Table

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Q#	Common Name	Description	Usage
Q20c	Culture Anat. 2	Q20c. Culture of Tissue and Other Body Fluids: If positive, enter anatomic code(s)	Length: 2, Format: ##, Label stored in the Anatomic Table
Q21a	X-ray	Q21a. Chest X-Ray:	Length: 1, 1=Normal, 2=Abnormal, 3=Not Done, 9=Unknown
Q21b	Abnormality	Q21b. Chest X-Ray: If Abnormal	Length: 1, 1=Cavitary, 2=Noncavitary Consistent with TB, 3=Noncavitary Not Consistent with TB, 9=Unknown
Q21c	X-ray Status	Q21c. Chest X-Ray: If Abnormal	Length: 1, 1=Stable, 2=Worsening, 3=Improving, 9=Unknown
Q22a	TB test	Q22a. Tuberculin (Mantoux) Skin Test at Diagnosis:	Length: 1, 1=Positive, 2=Negative, 3=Not Done, 9=Unknown
Q22b	Induration	Q22b. Tuberculin (Mantoux) Skin Test at Diagnosis: Millimeters (mm) of Induration	Length: 2, Format: # or ##, 1 or 01 through 98, or 99 (Unknown).
Q22c	Anergy	Q22c. Tuberculin (Mantoux) Skin Test at Diagnosis: If Negative, was patient anergic?	Length: 1, 1=Yes, 2=No, 9=Unknown
Q23a	HIV Status	Q23a. HIV Status	0=Negative, 1=Positive, 2=Indeterminate, 3=Refused, 4=Not Of
Q23b	HIV Basis	Q23b. HIV Status: If Positive, based on?	1=Medical Documentation, 2=Patient History, 9=Unknown
Q23c	CDC HIV Number	Q23c. HIV Status: If Positive, List: CDC AIDS Patient Number	Length: 7, Format: XXXXXXX
Q23d	State HIV Number	Q23d. HIV Status: If Positive, List: State HIV/AIDS Patient Number	Length: 10, Format: XXXXXXXXXX
Q23e	Local HIV Number	Q23e. HIV Status: If Positive, List: City/County HIV/AIDS Patient Number	Length: 10, Format: XXXXXXXXXX
Q24	Homeless	Q24. Homeless within Past Year	0=No, 1=Yes, 9=Unknown
Q25a	Correction	Q25a. Resident of Correctional Facility at Dx?	0=No, 1=Yes, 9=Unknown
Q25b	Correctional Facility	Q25b. Type of Correctional Facility	1=Federal Prison, 2=State Prison, 3=Local Jail, 4=Juvenile C
Q26a	Long-term	Q26a. Resident Long Term Care Facility at Dx?	0=No, 1=Yes, 9=Unknown
Q26b	Long-term Facility	Q26b. Type of Longterm Care Facility	1=Nursing Home, 2=Hospital-Based Facility, 3=Residential Fac
Q27a	Initial INH	Q27a. Initial Drug Regimen: Isoniazid	0=No, 1=Yes, 9=Unknown

Q#	Common Name	Description	Usage
Q27b	Initial RIF	Q27b. Initial Drug Regimen: Rifampin	0=No, 1=Yes, 9=Unknown
Q27c	Initial PZA	Q27c. Initial Drug Regimen: Pyrazinamide	0=No, 1=Yes, 9=Unknown
Q27d	Initial EMB	Q27d. Initial Drug Regimen: Ethambutol	0=No, 1=Yes, 9=Unknown
Q27e	Initial SM	Q27e. Initial Drug Regimen: Streptomycin	0=No, 1=Yes, 9=Unknown
Q27f	Initial ETH	Q27f. Initial Drug Regimen: Ethionamide	0=No, 1=Yes, 9=Unknown
Q27g	Initial KAN	Q27g. Initial Drug Regimen: Kanamycin	0=No, 1=Yes, 9=Unknown
Q27h	Initial CYC	Q27h. Initial Drug Regimen: Cycloserine	0=No, 1=Yes, 9=Unknown
Q27i	Initial CAP	Q27i. Initial Drug Regimen: Capreomycin	0=No, 1=Yes, 9=Unknown
Q27j	Initial PAS	Q27j. Initial Drug Regimem:Para-Amino Salicylic	0=No, 1=Yes, 9=Unknown
Q27k	Initial AM	Q27k. Initial Drug Regimen: Amikacin	0=No, 1=Yes, 9=Unknown
Q27l	Initial RIB	Q27l. Initial Drug Regimen: Rifabutine	0=No, 1=Yes, 9=Unknown
Q27m	Initial CIP	Q27m. Initial Drug Regimen: Ciprofloxacin	0=No, 1=Yes, 9=Unknown
Q27n	Initial OFL	Q27n. Initial Drug Regimen: Ofloxacin	0=No, 1=Yes, 9=Unknown
Q27o	Initial Other	Q27o. Initial Drug Regimen: Other	0=No, 1=Yes, 9=Unknown
Q28	RX Date	Q28. Date Therapy Started:	Length: 8, Format: yyyymmdd, yyyymm01 (Partial date) or Blank (Unknown)
Q28	Therapy Date Unknown	Indicates if Q28. Date Therapy Started: is Unknown or a Partial Date	Length: 1, 0/Null=Not Unknown, 1=Unknown, 2=Partial
Q29	Inject	Q29. Injecting Drug Use Within Past Year	0=No, 1=Yes, 9=Unknown
Q30	Non-inject	Q30. Non-injecting Drug Use Within Past Year	0=No, 1=Yes, 9=Unknown
Q31	Alcohol	Q31. Excess Alcohol Use Within Past Year	0=No, 1=Yes, 9=Unknown
Q32a	HCW Occupation	Q32a. Occupation: Health Care Worker	0=No, 1=Yes
Q32b	CORR Occupation	Q32b. Occupation: Correctional Employee	0=No, 1=Yes
Q32c	MIG Occupation	Q32c. Occupation:Migratory Agricultural Worker	0=No, 1=Yes

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Q#	Common Name	Description	Usage
Q32d	OTHER Occupation	Q32d. Occupation: Other Occupation	0=No, 1=Yes
Q32e	NO Occupation	Q32e. Occupation: Not Employed in Past 24 Mon.	0=No, 1=Yes
Q32f	UNK Occupation	Q32f. Occupation: Unknown	0=No, 1=Yes
QCV.1	Verified Count	Do you want to count this patient at CDC as a verified case of TB?	Length: 1, 1=Yes, 2=No, Blank=Pending or Not Applicable
QCV.2	Verified Criteria	Calculated Variable: Case Verification Criteria	Length: 1, 0=Not a Verified Case, 1=Positive Culture, 2=Positive Smear/Tissue, 3=Clinical Case Definition, 4=Verified by Provider Diagnosis, 5=Suspect Case
Q33a	ISUSC Test	Q33a. Initial Drug Susceptibiltiy Results: Was Drug Susceptibility Testing Done:	Length: 1, 0=No, 1=Yes, 9=Unknown
Q33b	ISUS Date	Q33b. If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility Was Done?	Length: 8, Format: yyyymmdd or Blank (Unknown)
Q33b	ISUS Date Unknown	Indicates if Q33b. If Yes, Date First Isolate Collected for Which Drug Suscep Was Done? is Unknown	Length: 1, 0/Null=Not Unknown, 1=Unknown
Q34a	INH Susceptibility	Q34a. Susceptibility Results: Isoniazid	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34b	RIF Susceptibility	Q34b. Susceptibility Results: Rifampin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34c	PZA Susceptibility	Q34c. Susceptibility Results: Pyrazinamide	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34d	EMB Susceptibility	Q34d. Susceptibility Results: Ethambutol	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34e	SM Susceptibility	Q34e. Susceptibility Results: Streptomycin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34f	ETH Susceptibility	Q34f. Susceptibility Results: Ethionamide	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34g	KAN Susceptibility	Q34g. Susceptibility Results: Kanamycin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34h	CYC Susceptibility	Q34h. Susceptibility Results: Cycloserine	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34i	CAP Susceptibility	Q34i. Susceptibility Results: Capreomycin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34j	PAS Susceptibility	Q34j. Susceptibility Results: Para-amino Salicylic Acid	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34k	AM Susceptibility	Q34k. Susceptibility Results: Amikacin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown

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Q#	Common Name	Description	Usage
Q34l	RIB Susceptibility	Q34l. Susceptibility Results: Rifabutine	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34m	CIP Susceptibility	Q34m. Susceptibility Results: Ciprofloxacin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34n	OFL Susceptibility	Q34n. Susceptibility Results: Ofloxacin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q34o	OTH Susceptibility	Q34o. Susceptibility Results: Other	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q35a	Convert	Q35a. Sputum Culture Conversion Documented:	Length: 1, 0=No, 1=Yes, 9=Unknown
Q35b	Positive Collect Date	Q35b. If Yes, Date Specimen Collected on Initial Positive Sputum Culture:	Length: 8, Format: yyyymmdd or Blank (Unknown)
Q35b	Positive Collect Date Unknown	Indicates if Q35b. If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown	Length: 1, 0/Null=Not Unknown, 1=Unknown
Q35c	Negative Collect Date	Q35c. If Yes, Date Specimen Collected on First Consistently Negative Culture:	Length: 8, Format: yyyymmdd or Blank (Unknown)
Q35c	Negative Collect Date Unknown	Indicates if Q35c. If Yes, Date Specimen Collected on First Consistently Negative Culture: Unknown	Length: 1, 0/Null=Not Unknown, 1=Unknown
Q36	Stop Therapy	Q36. Date Therapy Stopped:	Length: 8, Format: yyyymmdd, yyyymm01 (Partial date) or Blank (Unknown)
Q36	Stop Therapy Unknown	Indicates if Q36. Date Therapy Stopped: is Unknown or a Partial Date	Length: 1, 0/Null=Not Unknown, 1=Unknown, 2=Partial
Q37	Therapy Stop Reason	Q37. Reason Therapy Stopped:	Length: 1, 1=Completed Therapy, 2=Moved, 3=Lost, 4=Uncooperative or Refused, 5=Not TB, 6=Died, 7=Other, 9=Unknown
Q38	Provider Type	Q38. Type of Health Care Provider:	Length: 1, 1=Health Department, 2=Private/Other, 3=Both Health Department and Private/Other
Q39a	DOT	Q39a. Directly Observed Therapy:	Length: 1, 0=No, Totally Self-Administered, 1=Yes, Totally Directly Observed, 2=Yes, Both Directly Observed and Self-Administered, 9=Unknown
Q39b	Site of DOT	Q39b. Directly Observed Therapy: If Yes, Give Site(s) of Directly Observed Therapy:	Length: 1, 1=In Clinic or Other Facility, 2=In the Field, 3=Both in Facility and in the Field, 9=Unknown
Q39c	Weeks of DOT	Q39c. Directly Observed Therapy: Number of Weeks of Directly Observed Therapy:	Length: 3, Format: ###

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Q#	Common Name	Description	Usage
Q40a	Final Susceptibility flag	Q40a. Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done?	Length: 1, 0=No, 1=Yes, 9=Unknown
Q40b	Final Susceptibility date	Q40b. If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility Was Done:	Length: 8, Format: yyyymmdd or Blank (Unknown)
Q40b	FSUSC date unknown	Indicates if Q40b. If Yes, Date Final Isolate Collected for Which Drug Susceptibility Was Done: Unk	Length: 1, 0/Null=Not Unknown, 1=Unknown
Q41a	Final INH Susceptibility	Q41a. Final Susceptibility Results: Isoniazid	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41b	Final RIF Susceptibility	Q41b. Final Susceptibility Results: Rifampin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41c	Final PZA Susceptibility	Q41c. Final Susceptibility Results: Pyrazinamide	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41d	Final EMB Susceptibility	Q41d. Final Susceptibility Results: Ethambutol	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41e	Final SM Susceptibility	Q41e. Final Susceptibility Results: Streptomycin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41f	Final ETH Susceptibility	Q41f. Final Susceptibility Results: Ethionamide	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41g	Final KAN Susceptibility	Q41g. Final Susceptibility Results: Kanamycin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41h	Final CYC Susceptibility	Q41h. Final Susceptibility Results: Cycloserine	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41i	Final CAP Susceptibility	Q41i. Final Susceptibility Results: Capreomycin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41j	Final PAS Susceptibility	Q41j. Final Susceptibility Results: Para-Amino Salicyclic Acid	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41k	Final AM Susceptibility	Q41k. Final Susceptibility Results: Amikacin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41l	Final RIB Susceptibility	Q41l. Final Susceptibility Results: Rifabutine	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41m	Final CIP Susceptibility	Q41m. Final Susceptibility Results: Ciprofloxacin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41n	Final OFL Susceptibility	Q41n. Final Susceptibility Results: Ofloxacin	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q41o	Final OTH Susceptibility	Q41o. Final Susceptibility Results: Other	Length: 1, 1=Resistant, 2=Susceptible, 3=Not Done, 9=Unknown
Q10a	American Indian	Q10a. Race: American Indian or Alaska Native	Length: 1, 0=No, 1=Yes
Q10b	Asian	Q10b. Race: (Select one	Length: 1, 0=No, 1=Yes

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New Race collection items. in version 1.2 these will replace original race collection fields.

Q#	Common Name	Description	Usage
		or more) Asian	
Q10b1	Extended Asian	Q10c. Race: (Select one or more) Extended Asian	Length: 6, Extended Codes from the Race Table
Q10c	Black	Q10d. Race: (Select one or more) Black	Length: 1, 0=No, 1=Yes
Q10d	Native Hawaiian	Q10e. Race: (Select one or more) Native Hawaiian or Pacific Islander	Length: 1, 0=No, 1=Yes
Q10d1	Extended Native Hawaiian	Q10f. Race: (Select one or more) Extended Native Hawaiian or Pacific Islander	Length: 6, Extended Codes from the Race Table
Q10e	White	Q10g. Race: (Select one or more) White	Length: 1, 0=No, 1=Yes
Q10f	Unknown Race	Q10h. Race: (Select one or more) Unknown Race	Length: 1, 0=No, 1=Yes

Appendix B. Validations

The requirements indicated must be met before the record is imported. Unless otherwise noted, all fields that are not required will be imported as blanks, if no value is specified.

Q000.3. Last Name:

No spaces before or after the first letter of the last name
Must be in character format
Required field
One character names are not allowed

Q000.4 First Name:

No spaces before or after the first letter of the first name
Must be in character format
Required field
One character names are not allowed

Q000.5 Middle Name:

Must be in character format

Q02A. State Case Number:

Must be unique within the Month-Year Reported
Required field
Must be in alphanumeric format
In conjunction with Month-Year Reported as a unique key, must be unique

NOTE: UNIQUE KEY – TSIU determines uniqueness based on State Case Number and Month-Year Reported. If a record's State Case Number is modified, the record will be imported as a new record rather than the current record updated. Any modifications to State Case Number or Month-Year Reported requires the user to manually delete the TIMS record with the incorrect State Case Number and/or Month-Year Reported.

Q02B. City/County Case Number:

Must be in alphanumeric format

Q03. Date Submitted:

Must be equal to or after January 1, 1990
Must be equal to or after Date of Birth
Must be equal to or before Current date
Must be in valid date format YYYY-MM-DD, YYYY/MM/DD, YYYYMMDD
If there is a value of 1 in Date Submitted: Unknown, then must be blank
If there is a value of Null in Date Submitted: Unknown, then must be blank
If there is a value of 0 in Date Submitted: Unknown, then must not be blank

Q03. Date Submitted: Unknown

Must be a valid value of 0, Null or 1
If Date Submitted is blank then must equal Null or 1
If Date Submitted is not blank then must equal 0

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Q04A. Address for Case Counting: City:

Must be a valid city for the reporting area. If no city match is found, entry will be "City Not Specified" in the TIMS database. Record will still be included in error report

Q04B. Address for Case Counting: Within City Limits?

A value must exist in Q04A
Must be a valid entry of 1, 2, 9

Q04C.Address for Case Counting: County:

A value must exist in Q04A
Must be a valid county for the reporting area. If no county match is found, entry will be County Not Specified in the TIMS database. Record will still be included in error report

Q04D. Address for Case Counting: Zip-Value:

Only numeric values are allowed
A value must exist in Q04A

Q04E. Address for Case Counting: Zip-Value Suffix:

A value must exist in Q04A
Only numeric values are allowed

Q05. Month-Year Reported:

Must be equal to or after January 01, 1990
Must be equal to or before Month-Year Counted
Must be more than twelve months after Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis
Must be equal to or after Date of Birth
Must be equal to or before Current Date
Must be equal to or after Month-Year arrived in US
Must be in valid format: YYYY-MM-01, YYYY/MM/01, or YYYYMM01
This is a required field for assimilation of record into the TIMS database

NOTE: UNIQUE KEY – TSIU determines uniqueness based on State Case Number and Month-Year Reported. If a record's State Case Number is modified, the record will be imported as a new record rather than the current record updated. Any modifications to State Case Number or Month-Year Reported requires the user to manually delete the TIMS record with the incorrect State Case Number and/or Month-Year Reported.

Q06. Month-Year Counted:

Must be equal to or after Month-Year Reported
Must be equal to or after Date of Birth
Must be equal to or before the Current date
Must be equal to or after Month-Year Arrived in US
Must be equal to or after December 31, 1992
Vercount must equal 1 (Yes)
Must be in valid format: YYYY-MM-01, YYYY/MM/01, or YYYYMM01
If there is a value of 1 in Month-Year Counted: Unknown then must be blank
If there is a value of Null in Month-Year Counted: Unknown then

must be blank
If there is a value of 0 in Month-Year Counted: Unknown then must not be blank
If vercrit is not equal to 1, 2, 3, or 4 then must be blank
Must be greater than twelve months after year of Previous Diagnosis

Q06. Month-Year Counted: Unknown

Must be a valid value of 0, Null or 1
If Month-Year Counted is blank then must equal Null or 1Blank
If Month-Year Counted is not blank then must equal 0
If vercrit is not equal to 1, 2, 3, or 4 then must be blank

Q07. Date of Birth:

Must be equal to or before Current Date
Must be equal to or before Date Submitted
Must be equal to or before Month-Year Reported
Must be equal to or before Month-Year Counted
Must be equal to or before Month-Year Arrived in US
Must be equal to or before Date Therapy Started
Must be equal to or before Date First Isolate Collected for Which Drug Susceptibility Was Done
Must be equal to or before Date Specimen Collected on First Consistently Negative Culture
Must be equal to or before Date Final Isolate Collected for Which Drug Susceptibility Testing Was Done
Must be equal to or before Date Specimen Collected on Initial Positive Sputum Culture
Must be in valid format: YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD
This is a required field for assimilation of record into the TIMS database
Must be equal to or after Year of Previous Diagnosis
If there is a value of 1 in Date of Birth: Unknown, then must be blank
If there is a value of 0 in Date of Birth: Unknown, then must not be blank
Must be equal to or after 01/01/1880

Q07. Date of Birth: Unknown

Must be a valid value of 0 or 1
If Date of Birth (Q07) is blank then must equal 1
If Date of Birth (Q07) is not blank (Known Date) then must equal 0 (Known)

Q08. Sex:

Valid value of 1,2,9
The sex chosen must validate against any gender specific anatomic values listed in Major Site of Disease: If site is Other, enter anatomic value (Q15B), Additional Site of Disease: If site is Other, enter anatomic value (Q16B), Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q19B), Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q19C), Culture of Tissue and Other Body

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Fluids: If positive, enter anatomic value(s) (Q20B), Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q20C)

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Q09A. Race

Valid value of 1,2,3,4,9

Q09B. Race: Specify:

Must be blank unless Race (Q09A) contains a value of 4 (Asian or Pacific Islander)
Valid value of I, B, C, Z, F, G, H, N, J, K, L, M, P, X, W, S, V, Y, O, U

Q10. Ethnic Origin:

Valid value of 1,2,9

Q09. Ethnicity: (Select one)

Valid value of 1,2,9

Q10a. Race: (Select one or more) American Indian or Alaska Native

Valid value of 1 (Yes) or 0 (No)
Race: (Select one or more) :Unknown must equal 0

Q10b. Race: (Select one or more) Asian

Valid value of 1 (Yes) or 0 (No)
Race: (Select one or more) :Unknown must equal 0

Q10b1. Race: (Select one or more) Asian Extended Code)

Valid value from the list of corresponding hl7 codes
Race: (Select one or more) :Asian must equal 1 (Yes) and Unknown must equal 0

Q10c. Race: (Select one or more) Black or African American

Valid value of 1 (Yes) or 0 (No)
Race: (Select one or more) :Unknown must equal 0

Q10d. Race: (Select one or more) Native Hawaiian or Pacific Islander

Valid value of 1 (Yes) or 0 (No)
Race: (Select one or more) :Unknown must equal 0

Q10d1. Race: (Select one or more) Native Hawaiian or Pacific Islander Extended Code

Valid value from the list of corresponding hl7 codes
Race: (Select one or more) Native Hawaiian or Pacific Islander must equal 1 (Yes) and Unknown must equal 0

Q10e. Race: (Select one or more) White

Valid value of 1(Yes) or 0 (No)
Race: (Select one or more) :Unknown must equal 0

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Q10f. Race: (Select one or more) Unknown

Valid value of 1(Yes) or 0 (No)
Race: (Select one or more) :All other races must equal 0

Q11A. Country of Origin: If US Check Here:

Valid value of 1, 9, or blank

Q11B. Country of Origin: If not US, enter Country Value:

Must have a blank in Q11A
Valid value from the Nations list

Q12. Month-Year arrived in US:

Country of Origin: If US Check Here: must be blank
Must be equal to or after Date of Birth
Must be equal to or before Month-Year Counted
Must be equal to or before Month-Year Reported
Must be equal to or before Current Date
Must be equal to or before Date Therapy Started
Must be equal to or before Date First Isolate Collected for Which Drug Susceptibility Testing Was Done
Must be equal to or before Date Specimen Collected on Initial Positive Sputum Culture
Must be equal to or before Date Final Isolate Collected for Drug Susceptibility Testing Was Done
Must be equal to or before Date Specimen Collected on First Consistently Negative Culture
Must equal to or after 01/1880
Must be in valid format: YYYY-MM-01, YYYY/MM/01, YYYYMM01, YYYY-01-01, YYYY/01/01 or YYYY0101
If there is a value of 2 in Month-Year Arrived in US: Unknown then must be partial unknown date (YYYY0101)
If there is a value of 1 in Month-Year arrived in US: Unknown then must be blank
If there is a value of Null in Month-Year arrived in US: Unknown then must be blank
If there is a value of 0 in Month-Year arrived in US: Unknown then must not be blank
If Country of Origin: If not US, enter Country Value is blank, Month-Year arrived in US must be blank.

Q12. Month-Year arrived in US: Unknown

Must be a valid value of 0, Null, 1 or 2
If Month-Year arrived in US is blank then must equal Null or 1
If Month-Year arrived in US (Q12) is not blank then must equal 0 or 2

Q13. Status at Diagnosis of TB:

Valid value of 1,2,9

Q14A. Previous Diagnosis of Tuberculosis:

Valid value of 1, 2, 9

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Q14B. If Yes, list year of Previous Diagnosis:

Must be equal to of after 1900
Must be equal to or after Date of Birth
Must be greater than twelve months before Month-Year Reported
Must be greater than twelve months before Date First Isolate Collected for Which Drug Susceptibility Testing was Done
Must be greater than twelve months before Date Specimen Collected on Initial Positive Sputum Culture
Previous Diagnosis of Tuberculosis must be equal to 1
Must be in valid format: YYYY-01-01, YYYY/01/01, or YYYY0101
If there is a value of 1in If Yes, list year of Previous Diagnosis: Unknown then must be blank
If there is a value of Null in If Yes, list year of Previous Diagnosis: Unknown then must be blank
If there is a value of 0 in If Yes, list year of Previous Diagnosis: Unknown then must not be blank
Must be greater than twelve months before Month-Year Counted

Q14B. If Yes, list year of Previous Diagnosis: Unknown

Must be a valid value of 0, Null or 1
If Yes, list year of Previous Diagnosis (Q14) is blank then must equal Null or 1
If Yes, list year of Previous Diagnosis (Q14) is not blank then must equal 0
Previous Diagnosis of Tuberculosis (Q14A) is must equal to 1

Q14C. If more than one previous episode, check here:

Previous Diagnosis of Tuberculosis: (Q14A) must be equal to 1
Valid value of 1,9

Q15A. Major Site of Disease:

Must not have the same value as Additional Site of Disease (Q16A) except for 80
Valid value of 00, 10, 21, 22, 23, 29, 30, 40, 50, 60, 70, 80, 90
Additional Site of Disease, Additional Site of Disease: If site is Other, enter anatomic value or Additional Site of Disease: If more than one additional site check here are not blank, must not be equal to 50 or 90
Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s), Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s), or Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s), Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) have values, must not be equal to 90
Major Site of Disease: If site is "80" enter anatomic code has a value, must be equal to 80

Q15B. Major Site of Disease: If site is "(80) Other" enter anatomic value:

Major Site of Disease is equal to 80, there must be an anatomic value listed
The list of acceptable values is based on values entered in Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s), Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s), or Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s),

Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) and Sex

Q16A. Additional Site of Disease:

Must not have same entry as in Major Site of Disease except for 80
Major Site of Disease must not be equal to 50 or 90 or blank
If the value is 50, no other value may be included
Valid value of 00, 10, 21, 22, 23, 29, 30, 40, 50, 60, 70, 80, or 90
If Additional Site of Disease: If more than one additional site check here has a value of 1 then must contain more than one anatomic value in list
If a value exists in Additional Site of Disease: If site is "Other", enter anatomic code then 80 must exist in the list

Q16B. Additional Site of Disease: If site is "(80) Other" enter anatomic value:

If Additional Site of Disease contains 80 then Additional Site of Disease: If site is "(80) Other" enter anatomic code must contain an anatomic value
Must not have the same entry as Major Site of Disease: If site is "Other", enter anatomic value
The list of acceptable values is based on values entered in Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s), Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s), or Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s), Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) and Sex. See Appendix A

16C. Additional Site of Disease: If more than one additional site check here:

Valid value of 1, or blank
If Additional Site of Disease (Q16A) has more than one site listed then value must be 1

Q17. Sputum Smear:

Major Site of Disease or Additional Site of Disease (16A) must equal 00, 10, 22, or 50 or Major Site of Disease: If site is Other, enter anatomic value or Additional Site of Disease: If site is Other, enter anatomic value must contain one of the Following Anatomic Values: 18, 19, 20, 21, and 22, Sputum Smear must equal 1
Valid value of 1, 2, 3, 9

Q18. Sputum Culture:

Sputum Culture is equal to 1, Major Site of Disease or Additional Site of Disease must equal 00, 10, 22, or 50 or Major Site of Disease or Additional Site of Disease must contain one of the Following Anatomic Values: 18, 19, 20, 21, and 22
Reason Therapy Stopped must not be Not TB if Sputum Culture is equal to 1
If equal to 2, 9 or 3 then Sputum Conversion Documented must not be 1.
Valid Value of 1, 2, 3, 9

Q19A. Microscopic Exam of Tissue and Other Body Fluids:

Valid value of 1, 2, 3, 9
If a value exists in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) or Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) then Microscopic Exam of Tissue and Other Body Fluids must be equal to 1

Q19B. Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s):

Must not have the same anatomic value listed in Q19C
Must be a valid value from the Anatomic value list. Acceptable anatomic value values are based on the values entered in Sex (Q8), Major Site of Disease (Q15A, and Q15B) Additional Site of Disease (Q16A, and Q16B). See Appendix A
Microscopic exam of Tissue and Other body Fluids must be equal to 1
Major site of Disease must not be blank or contain 90
If there is a value in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) then there must be a value in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s)

Q19C. Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s):

Must not have the same anatomic value listed in Q19B
Must be a valid value from the Anatomic value list. Acceptable anatomic value values are based on the values entered in Sex, Major Site of Disease Additional Site of Disease and Culture of Tissue and Other Body Fluids. See Appendix A
Microscopic exam of Tissue and Other body Fluids must be equal to 1
Major site of Disease must not be blank or equal to 90
There must be a value in Q19B

Q20A. Culture of Tissue and Other Body Fluids:

Valid value of 1, 2, 3, 9
If Reason Therapy Stopped is equal to 5 then Culture of Tissue and Other Body Fluids must not be equal to 1
If there are values in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) or Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) then Culture of Tissue and Other Body Fluids must be equal to 1

Q20B. Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s):

Culture of Tissue and Other Body Fluids must be equal to 1
Must not have the same anatomic value as in Q20C
Major Site of Disease must not be blank or contain 90
Must be a valid value from the Anatomic value list. Acceptable anatomic value values are based on the values entered in Sex, Major Site of Disease and Additional Site of Disease
If there is a value in Q20C then there must be a value in Q20B

Q20C. Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s):

Must not have the same anatomic value listed in Q20B

Major site of Disease must not be blank or be equal to 90
There must be a value in Q20B
Must be a valid value from the anatomic value list. Acceptable anatomic value values are based on the values entered in Sex, Major Site of Disease and Additional Site of Disease
Culture of Tissue and Other body Fluids must be equal to 1

Q21A. Chest X-Ray:

Valid value of 1, 2, 3, 9
If there is a value in Chest X-Ray: If Abnormal (Q21B) or Chest X-Ray: If Abnormal (Q21C) then Chest X-Ray must equal 2

Q21B. Chest X-Ray: If Abnormal:

Chest X-Ray must equal 2
Valid value of 1,2,3,9

Q21C. Chest X-Ray: If Abnormal:

Chest X-Ray must be equal to 2
Valid value 1,2,3,9

Q22A. Tuberculin (mantoux) Skin Test at Diagnosis:

If Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration is greater than 9 and less than 99 then Tuberculin (mantoux) Skin Test at Diagnosis must be equal to 1
If Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration is less than 05 then Tuberculin (mantoux) Skin Test at Diagnosis must be 2
Valid value of 1,2,3,9
If Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration is equal to 99 or greater than 4 and less than 10 then Tuberculin (mantoux) Skin Test at Diagnosis must be equal to either 1 or 2

Q22B. Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration:

Tuberculin (Mantoux) Skin Test at Diagnosis must be equal to 1 or 2
If Tuberculin (mantoux) Skin Test at Diagnosis is equal to 1 then Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration must be greater than 04 and less than 98 or equal to 99
If Tuberculin (mantoux) Skin Test at Diagnosis is equal to 2 then Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration must be less than 10 equal to 99

Q22C. Tuberculin (mantoux) Skin Test at Diagnosis: If Negative (2), was patient anergic?:

Tuberculin (mantoux) Skin Test at Diagnosis must be equal to 2
Valid value of 1, 2, 9

Q23A. HIV Status

Valid value of 0, 1, 2, 3, 4, 5, 9
If HIV Status: If Positive, Based on or HIV Status: If Positive, List: CDC AIDS Patient Number or HIV Status If Positive, List: City/County HIV/AIDS Patient Number or HIV Status If Positive, List: State HIV/AIDS Patient Number has a value then HIV Status must be equal to 1 (Positive)

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Q23B. HIV Status: If Positive, Based on:

HIV Status must be equal to 1
Valid value 1, 2, 9

Q23C. HIV Status: If Positive, List: CDC AIDS Patient Number:

HIV Status must be equal to 1
Must be in alphanumeric format

Q23D. HIV Status: If Positive, List: State HIV/AIDS Patient Number:

HIV Status must be equal to 1
Must be in alphanumeric format

Q23E. HIV Status: If Positive, List: City/County HIV/AIDS Patient Number:

HIV Status must be equal to 1
Must be in alphanumeric format

Q24.Homeless Within Past Year:

Valid value of 0, 1, 9

Q25A. Resident of Correctional Facility at Time of Diagnosis:

Valid value of 0, 1, 9
Resident of Correctional Facility at Time of Diagnosis can only have a value if Resident of Long Term Care Facility at Time of Diagnosis contains a Blank, 0 or 9 and Resident of Long Term Care Facility at Time of Diagnosis: If Yes, is blank
If Resident of Correctional Facility at Time of Diagnosis: If Yes has a value then Resident of Correctional Facility at Time of Diagnosis must be equal to 1
If Resident of Long Term Care Facility at Time of Diagnosis is equal to 1 then must be equal to 0

Q25B. Resident of Correctional Facility at Time of Diagnosis: If Yes:

Resident of Correctional Facility at Time of Diagnosis must be equal to 1
Resident of Long Term Care Facility at Time of Diagnosis is not equal to Blank, 0, 9, Resident of Correctional Facility at Time of Diagnosis: If Yes must be blank
If Resident of Long Term Care Facility at Time of Diagnosis: If Yes, is not blank then Resident of Correctional Facility at Time of Diagnosis: If Yes must be blank
Valid value of 1, 2, 3, 4, 5, 9

Q26A. Resident of Long-Term Care Facility at Time of Diagnosis:

Resident of Long-Term Care Facility at Time of Diagnosis can only have a value if Resident of Correctional Facility at Time of Diagnosis is equal to 0, 9 and Resident of Correctional Facility at Time of Diagnosis If Yes is blank
If Resident of Long-Term Care Facility at Time of Diagnosis: If Yes has a value then Resident of Long-Term Care Facility at Time of Diagnosis must equal 1
Valid value of 0, 1, 9
Resident of Long-Term Care Facility at Time of Diagnosis must equal 0 if Resident of Correctional Facility at Time of Diagnosis is equal to 1

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Q26B. Resident of Long-Term Care Facility at Time of Diagnosis: If Yes:

Resident of Correctional Facility at Time of Diagnosis not equal to blank, 0, or 9, Resident of Long-Term Care Facility at Time of Diagnosis: If Yes must be blank
If Resident of Correctional Facility at Time of Diagnosis: If Yes is not blank then Resident of Long-Term Care Facility at Time of Diagnosis: If Yes must be blank
Valid value 1, 2, 3, 4, 5, 6, 9
Resident of Long-Term Care Facility at Time of Diagnosis: If Yes can have a value if Resident of Long Term Care Facility at Time of Diagnosis must equal 1

Q27. Initial Drug Regimen:

Note: As each drug is entered as a separate field in the table then these checks must be performed on the entire set of fields corresponding to the entire listing of Drugs.

Valid Value of 0, 1, 9
Date Therapy Started or Date Therapy Stopped have values, can not be blank.

Q28. Date Therapy Started:

Must be equal to or before Date Therapy Stopped
Must be equal to or before Current Date
Must be equal to or after Date of Birth
Must be equal to or after Month-Year Arrived in U.S.
Number of weeks entered in Number of Weeks of Directly Observed Therapy must not exceed number of weeks between Date Therapy Started and Date Therapy Stopped
There must be at least one drug in Initial Drug Regimen marked 1
If there is a value of 1 in Date Therapy Started: Unknown then must be blank
If there is a value of Null in Date Therapy Started: Unknown then must be blank
If there is a value of 0 in Date Therapy Started: Unknown then must not be blank
If there is a value of 2 in Date Therapy Started: Unknown then must be a partial date
Must be in valid format: YYYY-MM-DD, YYYY/MM/DD, YYYYMMDD, YYYYMM01, YYYY/MM/01 or YYYY-MM-01

Q28. Date Therapy Started: Unknown

Must be a valid value of 0, Null or 1
If Date Therapy Started: Unknown (Q28) is blank then must equal Null or 1
If Date Therapy Started: Unknown (Q28) is not blank, must equal 0, or 2

Q29. Injecting Drug Use Within Past Year:

Valid value of 0, 1, 9

Q30. Non-Injecting Drug Use Within Past Year:

Valid value of 0, 1, 9

Q31. Excess Alcohol Use Within Past Year?

Valid value of 0, 1, 9

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Q32A. Occupation (Check all that apply within the past 24 months): Health Care Worker

Valid value of 1 or blank (No)
Occupation (Check all that apply within the past 24 months): Not Employed Within Past 24 Months and Occupation (Check all that apply within the past 24 months): Unknown must equal Blank

Q32B. Occupation (Check all that apply within the past 24 months): Correctional Employee

Valid value of 1 or blank
Occupation (Check all that apply within the past 24 months): Not Employed Within Past 24 Months and Occupation (Check all that apply within the past 24 months): Unknown must equal Blank (No)

Q32C. Occupation (Check all that apply within the past 24 months): Migratory Agricultural Worker

Valid value of 1 or blank
Occupation (Check all that apply within the past 24 months): Not Employed Within Past 24 Months and Occupation (Check all that apply within the past 24 months):Unknown must equal Blank

Q32D. Occupation (Check all that apply within the past 24 months): Other Occupation

Valid value of 1 or blank
Occupation (Check all that apply within the past 24 months): Not Employed Within Past 24 Months and Occupation (Check all that apply within the past 24 months): Unknown must equal Blank

Q32E. Occupation (Check all that apply within the past 24 months): Not Employed within Past 24 Months

Valid value of 1 or blank
Occupation (Check all that apply within the past 24 months): Health Care Worker , Occupation (Check all that apply within the past 24 months): Correctional Employee , Occupation (Check all that apply within the past 24 months): Migratory Agricultural Worker , Occupation (Check all that apply within the past 24 months): Other Occupation and Occupation (Check all that apply within the past 24 months): Unknown must all equal Blank

Q32F. Occupation (Check all that apply within the past 24 months):Unknown

Valid value of 1 or blank
Occupation (Check all that apply within the past 24 months): Health Care Worker , Occupation (Check all that apply within the past 24 months): Correctional Employee , Occupation (Check all that apply within the past 24 months): Migratory Agricultural Worker , Occupation (Check all that apply within the past 24 months): Other Occupation and Occupation (Check all that apply within the past 24 months): Not Employed With 24 Past Month must all equal Blank

Q33A. Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done:

If Sputum Culture and Culture of Tissue and Other Body Fluids are equal to No , Not Done or Unknown then Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? must not be equal to 1
If Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? is equal to 1 then Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done must be equal to 1
Must be a valid value of 0, 1, 9

If there is a value in then If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done then Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? must be equal to 1
If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: has a value then Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? must be equal to 1
If the Final Susceptibility Results are not blank then Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? must be equal to 1
If Susceptibility Results are not blank then Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? must be equal to 1

Q33B. If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done?

If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done must be at least 1 year after Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis
Date First Isolate Collected for Which Drug Susceptibility was Done must be equal to or after Date of Birth
Date First Isolate Collected for Which Drug Susceptibility was Done must be equal to or after Month-Year Arrived in US
Date First Isolate Collected for Which Drug Susceptibility was Done must be greater or equal to 30 days before Date Final Isolate Collected for Which Drug Susceptibility Was Done
Must be equal to or before Current Date
Initial Drug Susceptibility Results must be equal to 1
Must be in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD
If Sputum Culture and Culture of Tissue and Other Body Fluids are equal to No, Not Done or Unknown then If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done must be blank
There is a value of 1 in If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown , If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done must be blank
There is a value of Null in If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown, If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done must be blank
There is a value of 0 in If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown, If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done must not be blank

Q33B. If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown ?

Must be a valid value of 0, Null or 1
If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done is blank, must equal Null or 1
If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done is not blank, must equal 0

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Q34. Susceptibility Results:

Note: As each drug is entered as a separate field in the table then these checks must be performed on the entire set of fields corresponding to the entire listing of Drugs.

Valid value of 1, 2, 3, 9
Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done must equal Yes.
If Sputum Culture and Culture of Tissue and Other Body Fluids are equal to No, Not Done or Unknown then Susceptibility Results must be blank

Q35A.Sputum Culture Conversion Documented

Sputum Culture must equal 1
If Yes, Date Specimen Collected on Initial Positive sputum Culture has a value then Sputum Culture Conversion Documented must be equal to 1
If Yes, Date Specimen Collected on First Consistently Negative Culture: has a value then Sputum Culture Conversion Documented must be equal to 1
Valid value of 0,1,9

Q35B. If Yes, Date Specimen Collected on Initial Positive Sputum Culture:

If Yes, Date Specimen Collected on Initial Positive Sputum Culture must be at least 1 year after Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis
If Yes, Date Specimen Collected on Initial Positive Sputum Culture must be equal to or after Date of Birth
If Yes, Date Specimen Collected on Initial Positive Sputum Culture must be equal to or after Month-Year arrived in US
If Yes, Date Specimen Collected on Initial Positive Sputum Culture must be equal to or before Current Date
If Yes, Date Specimen Collected on Initial Positive Sputum Culture must be equal to or before Date Specimen Collected on First Consistently Negative Culture
Sputum Culture Conversion Documented must be equal to 1
Must be in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD
If there is a value in If Yes, Date Specimen Collected on First Consistently Negative Culture then there must be a value in Date Specimen Collected on Initial Positive Sputum Culture
If there is a value of 1 in If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown then must be blank
If there is a value of Null in If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown then must be blank
If there is a value of 0 in If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown then must not be blank.

Q35B. If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown

Must be a valid value of 0, Null or 1
If Yes, Date Specimen Collected on Initial Positive Sputum Culture is blank then must equal Null (Blank) or 1 (Unknown)
If Yes, Date Specimen Collected on Initial Positive Sputum Culture is not blank (Known Date) then must equal 0 (Known)
Sputum Culture Conversion Documented is blank, If Yes, Date Specimen Collected on Initial Positive Sputum Culture must be blank

Q35C. If Yes, Date Specimen Collected on First Consistently Negative Culture:

If Yes, Date Specimen Collected on First Consistently Negative Culture must be at least 1 year after Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis
If Yes, Date Specimen Collected on First Consistently Negative Culture must be equal to or after Date of Birth
If Yes, Date Specimen Collected on First Consistently Negative Culture must be equal to or after Month-Year arrived in US
If Yes, Date Specimen Collected on First Consistently Negative Culture be must equal to or before Current Date
If Yes, Date Specimen Collected on First Consistently Negative Culture must be after If Yes, Date Specimen Collected on Initial Positive Sputum
Sputum Culture Conversion Documented must be equal to 1
If Yes, Date Specimen Collected on Initial Positive Sputum Culture cannot be blank
Must be in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD
If there is a value of 1 in If Yes, Date Specimen Collected on First Consistently Negative Culture: Unknown (Q35C) then must be blank
If there is a value of Null (Blank) in If Yes, Date Specimen Collected on First Consistently Negative Culture: Unknown then must be blank
If there is a value of 0 (Known) in If Yes, Date Specimen Collected on First Consistently Negative Culture: Unknown then must not be blank

Q35C. Date Specimen Collected on First Consistently Negative Culture: Unknown

Must be a valid value of 0, Null or 1
If Date Specimen Collected on First Consistently Negative Culture is blank then must equal Null (Blank) or 1 (Unknown)
If Date Specimen Collected on First Consistently Negative Culture is not blank (Known Date) then must equal 0 (Known)
If Sputum Culture Conversion Documented is blank then must be blank

Q36. Date Therapy Stopped:

Date Therapy Stopped must be equal to or after Date Therapy Started
The number of weeks between Date Therapy Started and Date Therapy Stopped must not be less than the number of weeks in Number of Weeks of Directly Observed Therapy
There must be at least one drug marked Yes in Initial Drug Regimen
Date Therapy Stopped must be equal to or before Current Date
Must in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD, YYYYMM01, YYYY-MM-01, YYYY/MM/01
If there is a value of 1 in Date Therapy Stopped: Unknown then must be blank
If there is a value of Null Blank in Date Therapy Stopped: Unknown then must be blank
If there is a value of 0 in Date Therapy Stopped: Unknown then must not be blank
If there is a value of 2 in Date Therapy Stopped: Unknown then

must be a partial date

Q36. Date Therapy Stopped: Unknown

Must be a valid value of 0, Null, 1 or 2
If Date Therapy Stopped is blank then must equal Null (Blank) or 1 (Unknown)
If Date Therapy Stopped is not blank (Known Date) then must equal 0 (Known) or 2

Q37. Reason Therapy Stopped:

If Sputum Culture is equal to 1 then 5 is not a valid value
If Culture of Tissue and Other Body Fluids is equal to 1 then 5 is not a valid value
There must be at least one drug marked 1 in Initial Drug Regimen
Must be a valid value of 1, 2, 3, 4, 5, 6, 7, 9

Q38. Type of Health Care Provider:

Valid value 1, 2, 3

Q39A. Directly observed Therapy:

If there is a value in If Yes, Give Site(s) of Directly Observed Therapy: then Directly Observed Therapy must not be equal to Blank, 0 or 9
Valid value of 0, 1, 2, 9
If there is a value in Number of Weeks of Directly Observed Therapy then Directly Observed Therapy must not be equal to Blank, 0 or 9

Q39B. If Yes, Give Site(s) of Directly Observed Therapy:

Valid value of 1, 2, 3, 9
Directly observed Therapy must equal 1 or 2

Q39C. Number of Weeks of Directly Observed Therapy:

Must be equal to or less than the number of weeks in the range between Date Therapy Started and Date Therapy Stopped
Directly observed Therapy must equal 1 or 2
Must be in a valid numeric format

Q40A. Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done?

If Initial Drug Susceptibility Testing is not equal to 1 then Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? must not be equal to 1
If there is a value in If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done then If Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? must be equal to 1
If there is a value in Final Susceptibility Results then If Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? must be equal to 1
Must be a valid value of 0, 1, 9

Q40B. If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done:

If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done must be equal to greater than 30 days after If Yes, Enter Date First Isolate Collected for Which Drug

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Susceptibility Testing Was Done
If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done must be equal to or after Date of Birth
If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done must be equal to or after Month-Year Arrived in US
If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done must be equal to or before Current Date
Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? must equal 1
Must be in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD
If there is a value of 1 in If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown then must be blank
If there is a value of Null Blank in If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown then must be blank
If there is a value of 0 in If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown then must not be blank

Q40B. If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown

Must be a valid value of 0, Null or 1
If If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done is equal to Null then must equal Null Blank or 1
If If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done is not blank then must equal 1
Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? is blank, If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown must be blank

Q41. Final Susceptibility Results:

Note: As each drug is entered as a separate field in the table then these checks must be performed on the entire set of fields corresponding to the entire listing of Drugs.

Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? must be equal to 1
Valid value of 1, 2, 3, 9

QCV.1 Do You want to count this patient at CDC as a verified case of TB?

Case verification calculation must have generated one of the following values: 1, 2, 3, or 4
Valid value of 1, 2, Blank
If there is value in Month-Year Counted (Q06) then must not be blank.

QCV.2 Case Verification Criteria

Valid value of 0, 1, 2, 3, 4, or 5
Value must equal case verification calculated by import utility. See table below for clarification

Case Verification Comparison Results:

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Import file vercrit value	TIMS vercrit calculation	Action
0	1,2,3	rejected
0	5	accepted with 0 as input value
1	0,2,3,5	rejected
2	0,1,3,5	rejected
3	0,1,2,5	rejected
4	0,1,2,3	rejected
4	5	accepted with 4 as input value
5	0,1,2,3	rejected
value	matching value	accepted

General Validations:

RVCT can not be blank
The age value supplied in the file must match the age value calculated by the import validation routine.
A record marked for deletion in the TIMS database which does not exist in the TIMS database will not be assimilated
During the assimilation process, only records which have a siteid which match the current siteid will be updated.
A record marked for deletion in the TIMS database will not be updated.

Appendix C. TSIU Error Messages

Number	Message
-31	Last Name (Q000.3) must not have spaces before or after the first letter.
-32	Last Name (Q000.3) must be in character format.
-34	Last Name (Q000.3) is required for the assimilation of this record into the TIMS database.
-35	Last Name (Q000.3) must contain more than one character.
-41	First Name (Q000.4) must not have spaces before or after the first letter.
-42	First Name (Q000.4) must be in character format.
-44	First Name (Q000.4) is required for the assimilation of this record into the TIMS database.
-45	First Name (Q000.4) must contain more than one character.
-51	Middle Initial (Q000.5) must be in character format.
-101	State Case Number (Q02A) must be unique within the Month-Year Reported (Q05).
-200	State Case Number (Q02A) must not be blank at the Reporting Area Level. State Case Number (Q02A) is required for the assimilation of this record into the TIMS database at the Reporting Area Level.
-201	State Case Number (Q02A) must be in alphanumeric format.
-202	This record represents a duplicate record based on the unique key combination of State Case Number and Month-Year Reported..
-250	City/County Case Number (Q02B) must be unique within the Month-Year Reported (Q05).
-252	City/County Case Number (Q02B) must be in alphanumeric format.
-253	This record represents a duplicate record based on the unique key combination of Local Case Number and Month-Year Reported..
-301	Date Submitted (Q03) must be equal to or after January 1, 1990.
-302	Date Submitted (Q03) must be equal to or after Date of Birth (Q07).
-303	Date Submitted (Q03) must be equal to or before the Current Date.
-304	Date Submitted (Q03) is not in the valid format of YYYY-MM-DD, YYYY/MM/DD, YYYYMMDD.
-305	There is a value of 1 (Unknown) in Date Submitted: Unknown (Q03), Date Submitted (Q03) must be blank.
-306	There is a value of Null (Blank) in Date Submitted: Unknown (Q03), Date Submitted (Q03) must be blank.
-307	There is a value of 0 (Known) in Date Submitted: Unknown (Q03), Date Submitted (Q03) must not be blank.
-351	Date Submitted: Unknown (Q03) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).
-352	Date Submitted (Q03) is blank, Date Submitted: Unknown (Q03) must equal Null (blank) or 1 (Unknown).
-353	Date Submitted (Q03) is not blank (Known Date), Date Submitted: Unknown (Q03) must equal 0 (Known).

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Number	Message
-401	Address for Case Counting: City (Q04A) must be valid within the reporting area. No matching City found, record will be inserted into the TIMS database with the value of "City Not Specified" for the City field.
-421	Address for Case Counting: City (Q04A) is blank, Address for Case Counting: Within City Limits (Q04B) must be blank.
-422	Address for Case Counting: Within City Limits (Q04B) is not equal to a valid value of 1 (Yes), 2 (No), or 9 (Unknown).
-441	Address for Case Counting: City (Q04A) is blank, Address for Case Counting: County (Q04C) must be blank.
-442	Address for Case Counting: County (Q04C) must be valid within the reporting area. No matching County (Q04C) found, record will be inserted into the TIMS database with the value of "County Not Specified" for the County field.
-461	Address for Case Counting: City (Q04A) is blank, Address for Case Counting: Zip-Value (Q04D) must be blank.
-462	Address for Case Counting: Zip-Value (Q04D) is not in numeric format.
-481	Address for Case Counting: City (Q04A) is blank, Address for Case Counting: Zip-Value Suffix (Q04E) must be blank.
-482	Q04E. Address for Case Counting: Zip-Value Suffix is not in numeric format.
-501	Month-Year Reported (Q05) must be equal to or after January 1, 1990.
-502	Month-Year Reported (Q05) must be equal to or before Month-Year Counted (Q06).
-503	Month-Year Reported (Q05) must be at least 1 year after Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B).
-504	Month-Year Reported (Q05) must be equal to or after Date of Birth (Q07).
-505	Month-Year Reported (Q05) must be equal to or before Current Date.
-506	Month-Year Reported (Q05) must be equal to or after Month-Year Arrived in US (Q12).
-507	Month-Year Reported (Q05) must be in the valid format of YYYY-MM-01, YYYY/MM/01, or YYYYMM01.
-508	Month-Year Reported (Q05) is required for the assimilation of this record into the TIMS database.
-601	Month-Year Counted (Q06) must be equal to or after Month-Year Reported (Q05).
-603	Month-Year Counted (Q06) must be equal to or after Date of Birth (Q07).
-604	Month-Year Counted (Q06) must not be after the Current Date.
-605	Month-Year Counted (Q06) must be equal to or after Month-Year Arrived in US (Q12).
-606	Month-Year Counted (Q06) must be equal to or after December 31, 1992.
-607	QCV.1 Do You want to count this patient at CDC as a verified case of TB? (QCV.1) is not equal to 1 (Yes), Month-Year Counted must be blank.
-608	Month-Year Counted (Q06) is not in the valid format of YYYY-MM-01, YYYY/MM/01, or YYYYMM01.
-609	There is a value of 1 (Unknown) in Month-Year Counted: Unknown (Q05), Month-Year Counted (Q06) must be blank.
-610	There is a value of Null (Blank) in Month-Year Counted: Unknown (Q05), Month-Year Counted (Q06) must be blank.

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Number	Message
-611	There is a value of 0 (Known) in Month-Year Counted: Unknown (Q05), Month-Year Counted (Q06) must not be blank.
-612	Case Verification Criteria (QCV.2) is not equal to 1 (Positive Culture), 2 (Positive/Smear Tissue), 3 (Clinical Case Definition), or 4 (Verified by Provider Diagnosis), Month-Year Counted (Q06) must be blank
-613	Month-Year Counted (Q06) must be greater than twelve months after Year of Previous Diagnosis (Q14B).
-651	Month-Year Counted (Q06) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).
-652	Month-Year Counted (Q06) is blank, Month-Year Counted: Unknown (Q06) must equal Null (Blank) or 1 (Unknown).
-653	Month-Year Counted (Q06) is not blank (Known Date), Month-Year Counted: Unknown (Q06) must equal 0 (Known).
-654	Case Verification Criteria (QCV.2) is not equal to 1 (Positive Culture), 2 (Positive/Smear Tissue), 3 (Clinical Case Definition), or 4 (Verified by Provider Diagnosis), Month-Year Counted: Unknown (Q06) must be blank.
-701	Date of Birth (Q07) must be equal to or before Current Date.
-702	Date of Birth (Q07) must be equal to or before Date Submitted (Q03).
-703	Date of Birth (Q07) must be equal to or before Month Year Reported (Q05).
-704	Date of Birth (Q07) must be equal to or before Month Year Counted (Q06).
-705	Date of Birth (Q07) must be equal to or before Month Year arrived in US (Q12).
-706	Date of Birth (Q07) must be equal to or before Date Therapy Started (Q28).
-707	Date of Birth (Q07) must be equal to or before Date First Isolate Collected for Which Drug Susceptibility Was Done (Q33A).
-708	Date of Birth (Q07) must be equal to or before Date Specimen Collected on First Consistently Negative Culture (Q34C).
-709	Date of Birth (Q07) must be equal to or before Date Final Isolate Collected for Which Drug Susceptibility Testing Was Done (Q40B).
-710	Date of Birth (Q07) must be equal to or before Date Specimen Collected on Initial Positive Sputum Culture (Q34B).
-711	Date of Birth (Q07) is not in the valid format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD.
-712	Date of Birth (Q07) is required for the assimilation of this record into the TIMS database.
-713	Date of Birth (Q07) must be equal to or after If Yes, list year of Previous Diagnosis (Q14A).
-714	There is a value of 1 (Unknown) in Date of Birth: Unknown (Q07), Date of Birth (Q07) must be blank.
-716	There is a value of 0 (Known) in Date of Birth: Unknown (Q07), Date of Birth (Q07) must not be blank.
-717	Date of Birth (Q07) must be equal to or after 01/01/1880.
-751	Date of Birth: Unknown (Q07) is not a valid value of 0 (Not Unknown) or 1 (Unknown).
-752	Date of Birth (Q07) is blank, Date of Birth: Unknown (Q07) must equal 1 (Unknown).

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These error msgs will not apply in version 1.2

Number	Message
-753	Date of Birth (Q07) is not blank (Known Date), Date of Birth: Unknown (Q07) must equal 0 (Known).
-791	The age value supplied in the file does not match the age value calculated by the import validation routine.
-801	Sex (Q08) is not equal to a valid value of 1 (Male), 2 (Female), or 9 (Unknown)
-802	Sex (Q08) is not equal to a valid value based on the anatomic values listed in Major site of Disease (Q15B), Additional Site of Disease (Q16B), Microscopic Exam of Tissue and Other Body Fluids (Q19B & Q19C), and Culture of Tissue and Other Body Fluids (Q20B & Q20C). See Appendix A.
-901	Race (Q09A) is not equal to a valid value of 1 (White), 2 (Black), 3 (American Indian or Alaskan Native), 4 (Asian or Pacific Islander), or 9 (Unknown).
-951	Race (Q09A) is not equal to 4 (Asian or Pacific Islander) in, Race: Specify (Q09B) must be blank.
-952	Race: Specify (Q09B) is not equal to a valid value of I (Asian Indian), B(Cambodian), C (Chinese), Z (Chuukese), F (Filipino), G (Guamanian), H (Hawaiian), N (Indonesian), J (Japanese), K (Korean), L (Laotian), M (Marshallese), P (Palauan), X (Pohnpeian), W (Saipanese), S (Samoan), V (Vietnamese), Y (Yapese), O (Other), or U (Unknown).
-1001	Ethnic Origin (Q10) is not equal to a valid value of 1 (Hispanic), 2 (Not Hispanic), or 9 (Unknown).
-1101	Country of Origin: If US Check Here (Q11A) is not equal to a valid value of 1 (Yes), Blank (No), or 9 (Unknown).
-1151	Country of Origin: If US Check Here (Q11A) is not equal to blank (No), Country of Origin: If not US, enter Country Value (Q11B) must be blank.
-1152	Country of Origin: If not US, enter Country Value (Q11B) is not equal to a valid value from the nation value list.
-1201	Country of Origin: If US Check Here (Q11A) is not blank, Month-Year arrived in US (Q12) must be blank.
-1202	Month-Year arrived in US (Q12) must be equal to or before Date of Birth (Q07).
-1203	Month-Year arrived in US (Q12) must be equal to or before Month Year Reported (Q05).
-1204	Month-Year arrived in US (Q12) must be equal to or before Month Year Counted (Q06).
-1205	Month-Year arrived in US (Q12) must be equal to or before the Current Date.
-1206	Month-Year arrived in US (Q12) must be equal to or before Date Therapy Started (Q28).
-1207	Month-Year arrived in US (Q12) must be equal to or before Date First Isolate Collected for Which Drug Susceptibility Testing Was Done (Q33B).
-1208	Month-Year arrived in US (Q12) must be equal to or before Date Specimen Collected on Initial Positive Sputum Culture (Q35B).
-1209	Month-Year arrived in US (Q12) must be equal to or before Date Final Isolate Collected for Which Drug Susceptibility Testing Was Done (Q40B).
-1210	Month-Year arrived in US (Q12) must be equal to or before Date Specimen Collected on First Consistently Negative Culture' (Q35C).
-1211	Month-Year arrived in US (Q12) must be equal to or after 01/1880.
-1212	Month-Year arrived in US (Q12) is not in the valid format of YYYY-MM-01, YYYY/MM/01, YYYYMM01, YYYY-01-01, YYYY/01/01 or YYYY0101.

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Number	Message
-1213	There is a value of 2 (Partial) in Month-Year Arrived in US: Unknown (Q12), Month-Year arrived in US (Q12) must be a partial unknown date.
-1214	There is a value of 1 (Unknown) in Month-Year arrived in US: Unknown (Q12), Month-Year arrived in US (Q12) must be blank.
-1215	There is a value of Null (Blank) in Month-Year arrived in US: Unknown (Q12), Month-Year arrived in US (Q12) must be blank.
-1216	There is a value of 0 (Known) in Month-Year arrived in US: Unknown (Q12), Month-Year arrived in US (Q12) must not be blank.
-1217	Country of Origin: If not US, enter Country Value (Q11B) is blank, Month-Year arrived in US (Q12) must be blank.
-1251	Month-Year arrived in US: Unknown (Q12) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).
-1252	Month-Year arrived in US (Q12) is blank, Month-Year arrived in US: Unknown (Q12) must equal Null (Blank) or 1 (Unknown).
-1253	Month-Year arrived in US (Q12) is not blank (Known Date), Month-Year arrived in US: Unknown (Q12) must equal 0 (Known) or 2 (Partial Date).
-1301	Status at Diagnosis of TB (Q13) is not a valid value of 1 (Alive), 2 (Dead), or 9 (Unknown).
-1401	Previous Diagnosis of Tuberculosis (Q14) is not a valid value of 1 (Yes), 2 (No), or 9 (Unknown).
-1420	Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B) must be equal to or after 1900.
-1421	Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B) must be equal to or after Date of Birth.
-1423	Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B) must be at least 1 year before Month-Year Reported (Q05).
-1424	Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B) must be at least 1 year before Date First Isolate Collected for which Drug Susceptibility was done.
-1425	Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q145B) is not in the valid format of YYYY-01-01, YYYY/01/01, or YYYY0101.
-1426	There is a value of 1 (Unknown) in If Yes, list year of Previous Diagnosis: Unknown (Q14B), If Yes, list year of Previous Diagnosis (Q14) must be blank.
-1427	There is a value of Null (Blank) in If Yes, list year of Previous Diagnosis: Unknown (Q14B), If Yes, list year of Previous Diagnosis (Q14) must be blank.
-1428	There is a value of 0 (Known) in If Yes, list year of Previous Diagnosis: Unknown (Q14B), If Yes, list year of Previous Diagnosis (Q14) must not be blank.
-1429	Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B) must be at least 1 year before Date Specimen Collected on Initial Positive Sputum Culture.
-1429	Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B) must be at least 1 year before Month-Year Counted (Q06).
-1430	Previous Diagnosis of Tuberculosis (Q14A) is not equal to 1 (Yes), Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q145B) must be blank.
-1441	If Yes, list year of Previous Diagnosis: Unknown (Q14B) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).

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Number	Message
-1442	If Yes, list year of Previous Diagnosis (Q14) is blank, If Yes, list year of Previous Diagnosis: Unknown (Q14B) must equal Null (Blank) or 1 (Unknown).
-1443	If Yes, list year of Previous Diagnosis (Q14) is not blank (Known Date), If Yes, list year of Previous Diagnosis: Unknown (Q14B) must equal 0 (Known).
-1444	Previous Diagnosis of Tuberculosis (Q14A) is not equal to 1 (Yes), If Yes, list year of Previous Diagnosis: Unknown (Q14B) must be blank.
-1461	Previous Diagnosis of Tuberculosis (Q14A) is not equal to 1 (Yes), Previous Diagnosis of Tuberculosis: If more than one previous episode, check here (Q14C) must be blank.
-1462	Previous Diagnosis of Tuberculosis: If more than one previous episode, check here (Q14C) is not equal to a valid value of 1 (Yes), or 9 (Unknown).
-1510	Major Site of Disease (Q15A) must not have the same value as Additional Site of Disease (Q16A) except for 80 (other).
-1511	Major Site of Disease (Q15A) is not equal to a valid value of 00 (Pulmonary), 10 (Pleural), 21 (Lymphatic: Cervical) , 22 (Lymphatic: Intrathoracic), 23 (Lymphatic: Other), 29 (Unknown), 30 (Bone and/or Joint), 40 (Genitourinary), 50 (Miliary), 60 (Meningeal), 70 (Peritoneal), 80 (Other), or 90 (Site not Stated).
-1512	Additional Site of Disease (Q16A), Additional Site of Disease: If site is Other, enter anatomic code (Q16B) or Additional Site of Disease: If more than one additional site check here (Q16C) are not blank, Major Site of Disease (Q15A) must not be equal to 50 (Miliary) or 90 (Site not Stated).
-1513	Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q19B), Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q19C), or Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q20B), Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q20C) have values, Major Site of Disease (Q15A) must not be equal to 90 (Site not Stated).
-1514	Major Site of Disease: If site is "(80) Other" enter anatomic value (Q15B) has a value, Major Site of Disease (Q15A) must be equal to 80 (Other).
-1520	Major Site of Disease (Q15A) is equal to 80 (Other), there must be an anatomic value entry in Major Site of Disease: If site is "(80) Other" enter anatomic value (Q15B).
-1530	Major Site of Disease: If site is "(80) Other" enter anatomic value (Q15B) is equal to an invalid anatomic value based on values entered in Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q19B), Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q19C), or Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q20B), Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q20C) and Sex (Q08). See Appendix A.
-1610	Additional Site of Disease (Q16A) must not have the same as Major Site of Disease (Q15A) except for the value of 80 (Other).
-1611	Major Site of Disease is equal to 50 (Miliary), 90 (Site not Stated) or is blank, Additional Site of Disease (Q16A) must be blank.
-1612	Additional Site of Disease (Q16A) is equal to 50 (Miliary), can only contain one entry.
-1613	Additional Site of Disease (Q16A) is not equal to a valid value of 00 (Pulmonary), 10 (Pleural), 21 (Lymphatic: Cervical) , 22 (Lymphatic: Intrathoracic), 23 (Lymphatic: Other), 29 (Unknown), 30 (Bone and/or Joint), 40 (Genitourinary), 50 (Miliary), 60 (Meningeal), 70 (Peritoneal), 80 (Other), or 90 (Site not Stated).

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Number	Message
-1614	Additional Site of Disease: If more than one additional site check here (Q16C) has a value of 1 (Yes), Additional Site of Disease (Q16A) must list more than one anatomic value.
-1615	A value exists in Additional Site of Disease: If site is “Other”, enter anatomic value (Q16B), Additional Site of Disease (Q16A) must contain 80 (other) in the entry list.
-1620	Additional Site Of Disease (Q16A) has 80 (Other) listed, there must be an anatomic value entry in Additional Site of Disease: If site is "(80) Other" enter anatomic value (Q16B).
-1622	Additional Site of Disease: If site is "(80) Other" enter anatomic value (Q16B) can not be the same as anatomic value for Major Site of disease (Q15B).
-1623	Additional Site of Disease: If site is "(80) Other" enter anatomic value (Q16B) is equal to an invalid anatomic value based on values entered in Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q19B), Microscopic Exam of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q19C), or Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q20B), Culture of Tissue and Other Body Fluids: If positive, enter anatomic value(s) (Q20C) and Sex (Q08). See A.
-1651	Additional Site of Disease: If more than one additional site check here (Q16C) is not equal to a valid value of 1 (Yes) or Blank (No).
-1652	Additional Site Of Disease (Q16A) has more than one site listed, Additional Site of Disease: If more than one additional site check here (Q16C) must equal 1 (Yes).
-1700	Major Site of Disease (15A) or Additional Site of Disease (16A) equal 00 (Pulmonary), 10 (Pleural), 22 (Lymphatic: Intrathoracic), or 50 (Miliary) or Major Site of Disease: If site is Other, enter anatomic value (Q15B) or Additional Site of Disease: If site is Other, enter anatomic value (Q16B) contain one of the Following Anatomic Values: 18 (Nose), 19 (Accessory Sinus) , 20 (Nasopharynx), 21 (Epiglottis and Larynx), and 22(Trachea), Sputum Smear (Q17) must be equal to 1 (Positive).
-1701	Sputum Smear (Q17) is not a valid value of 1 (Positive), 2 (Negative), 3(Not Done), 9 (Unknown).
-1801	Sputum Culture (Q18) is equal to 1 (Positive), Major Site of Disease (15A) or Additional Site of Disease (16A) must equal 00 (Pulmonary), 10 (Pleural), 22 (Lymphatic: Intrathoracic), or 50 (Miliary) or Major Site of Disease: If site is Other, enter anatomic value (Q15B) or Additional Site of Disease: If site is Other, enter anatomic value (Q16B) contain one of the Following Anatomic Values: 18 (Nose), 19 (Accessory Sinus), 20 (Nasopharynx), 21 (Epiglottis and Larynx), and 22 (Trachea).
-1802	Reason Stopped Therapy (Q37) is equal to 5 (Not TB), Sputum Culture (Q18) must not be equal to 1(Positive).
-1803	Sputum Conversion Documented (Q35) is equal to 1 (Yes), Sputum Culture (Q18) must not be equal to 2 (Negative), 9 (Unknown), 3 (Not Done).
-1804	Sputum Culture is not equal to a valid value of 1 (Positive) ,2 (Negative) ,3 (Not Done) or 9 (Unknown).
-1901	Microscopic Exam of Tissue and Other Body Fluids (Q19A) is not a valid value of 1 (Positive), 2 (Negative), 3 (Not Done), or 9 (Unknown).
-1902	A value exists in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19B) or Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19C), Microscopic Exam of Tissue and Other Body Fluids (Q19A) must be equal to 1 (Positive).

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Number	Message
-1910	Microscopic Exam of Tissue and Other Body Fluids is equal to 1 (Positive) and Major Site of Disease (Q15A) is not equal to 90 (Site not Stated) or blank, at least one anatomic value is required in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19B).
-1911	Major site of Disease (Q15A) is blank or is equal to 90 (site not stated), Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (19B) must not contain a value.
-1912	There is a value in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19C), there must be a value in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s)(Q19B).
-1920	Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19B) must not be the same as the value entered in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s)(Q19C). .
-1921	Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19B) is equal to an invalid anatomic value based on values entered in Sex (Q8), Major Site of Disease (Q15A, and Q15B) and Additional Site of Disease (Q16A, and Q16B). See Appendix A.
-1930	Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19C) must not have the same value as in Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19B). .
-1932	Microscopic Exam of Tissue and Other Body Fluids: If positive (1) enter anatomic value(s) (19C) is equal to an invalid anatomic value based on values entered in Sex (Q8), Major Site of Disease (Q15A, and Q15B) Additional Site of Disease (Q16A, and Q16B). See Appendix A.
-1933	Microscopic Exam of Tissue and Other Body Fluids (Q19A) is not equal to 1 (Positive), Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19C) must not contain a value.
-1934	Major site of Disease (Q15A) contains 90 (site not stated) or is blank, Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19C) must not contain a value.
-1935	Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19B) is blank, Microscopic Exam of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q19C) must not contain a value.
-2004	Culture of Tissue and Other Body Fluids (Q20A) is not a valid value of 1 (Positive), 2 (Negative), 3 (Not Done), or 9 (Unknown).
-2005	Reason Therapy Stopped (Q37) is equal to 5 (Not TB), Culture of Tissue and Other Body Fluids (Q20A) must not be equal to 1 (Positive).
-2006	There are values in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20B) or Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20C), Culture of Tissue and Other Body Fluids (Q20A) must be equal to 1 (Positive).
-2010	Culture of Tissue and Other Body Fluids (Q20A) is equal to 1 (Positive) and Major Site of Disease (Q15A) is not equal to 90 (Site not Stated) or blank, at least one anatomic value is required in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20B).

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Number	Message
-2020	Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20B) must not be the same as the value entered in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20C).
-2021	Major Site of Disease (Q15A) is equal to 90 (Site not Stated) or is blank, must not have an Anatomic Value in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20B).
-2023	Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20B) is equal to an invalid anatomic value based on values entered in Sex (Q08), Major Site of Disease (Q15A and Q15B) and Additional Site of Disease (Q16A and Q16B). See Appendix A.
-2024	There is a value in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20C), there must be a value in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20B).
-2030	Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20C) must not be the same as the value entered in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20B).
-2031	Major Site of Disease (Q15A) is equal to 90 (Site not Stated) or is blank, must not have an anatomic value in Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20C).
-2032	Culture of Tissue and Other Body Fluids: If positive (1), enter anatomic value(s) (Q20B) must have a value.
-2033	Culture of Tissue and Other Body Fluids (Q20A) is equal to an invalid value based on values entered in Sex (Q08), Major Site of Disease (Q15A, Q15B) and Additional Site of Disease (Q16A, Q16B). See Appendix A.
-2034	Culture of Tissue and Other Body Fluids (Q20A) is not equal to 1 (Positive), Culture of Tissue and Other Body Fluids: If Positive (1), enter anatomic code(s) (20C) must be blank.
-2101	Chest X-Ray (Q21A) is not a valid value 1 (Normal), 2 (Abnormal), 3 (Not Done), or 9 (Unknown).
-2102	There is a value in Chest X-Ray: If Abnormal (Q21B) or Chest X-Ray: If Abnormal (Q21C), Chest X-Ray (Q21A) must equal 2 (Abnormal).
-2131	Chest X-Ray (Q21A) is not equal to 2 (Negative), Chest X-Ray: If Abnormal (Q21B) must be blank.
-2132	Chest X-Ray: If Abnormal (Q21B) is not a valid value of 1 (Cavitary)), 2 (Noncavitary Consistent with TB), 3 (Noncavitary Not Consistent with TB), or 9 (Unknown)
-2161	Chest X-Ray (Q21A) is not equal to 2 (Negative), Chest X-Ray: If Abnormal (Q21C) must be blank.
-2162	Chest X-Ray: If Abnormal (Q21C) is not a valid value of 1 (Stable), 2 (Worsening), 3 (Improving), or 9 (Unknown).
-2220	Q22. Tuberculin (mantoux) Skin Test at Diagnosis is not a valid value of 1 (Positive), 2 (Negative), 3 (Not Done), or 9 (Unknown)
-2221	Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration (Q22B) is greater than 9 and less than 99, Tuberculin (mantoux) Skin Test at Diagnosis (Q22A) must be equal to 1 (Positive)
-2222	Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration (Q22B) is less than 05, Tuberculin (mantoux) Skin Test at Diagnosis (Q22A) must be 2 (Negative).

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Number	Message
-2223	Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration (Q22B) is equal to 99 or greater than 4 and less than 10, Tuberculin (mantoux) Skin Test at Diagnosis (Q22A) must be equal to either 1 (Positive) or 2 (Negative).
-2241	Tuberculin (mantoux) Skin Test at Diagnosis (Q22A) is not equal to 1 (Positive) or 2 (Negative), Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration (Q22B) must be blank.
-2242	Tuberculin (mantoux) Skin Test at Diagnosis (Q22A) is equal to 1 (Positive), Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration (Q22B) must be greater than 04 and less than 98 or 99.
-2243	Tuberculin (mantoux) Skin Test at Diagnosis (Q22A) is equal to 2 (Negative), Tuberculin (mantoux) Skin Test at Diagnosis: Millimeters of Induration (Q22B) must be less than 10 or 99.
-2271	Tuberculin (mantoux) Skin Test at Diagnosis(Q22A) is not equal to 2 (Negative), Tuberculin (mantoux) Skin Test at Diagnosis: If Negative (2), was patient anergic? (Q22C) must be blank.
-2272	Tuberculin (mantoux) Skin Test at Diagnosis: If Negative (2), was patient anergic? (Q22C) is not a valid value of 1 (Yes), 2 (No), or 9 (Unknown).
-2301	HIV Status (Q23A) is not a valid value of 0 (Negative), 1 (Positive), 2 (Indeterminate), 3 (Refused), 4 (Not Offered), 5 (Test Done, Results Unknown), or 9 (Unknown).
-2302	HIV Status: If Positive, Based on (Q23B) or HIV Status: If Positive, List: CDC AIDS Patient Number (Q23C) or HIV Status If Positive, List: City/County HIV/AIDS Patient Number (Q23D) or HIV Status If Positive, List: State HIV/AIDS Patient Number (Q23E) has a value, HIV Status (Q23A) must be equal to 1 (Positive).
-2341	HIV Status: If Positive, Based (Q23B) can only have a value if HIV Status (Q23A) is equal to 1 (Positive).
-2342	Q23B. HIV Status: If Positive, Based (Q23B) on is not a valid value of 1 (Medical Documentation), 2 (Patient History), or 9 (Unknown).
-2371	HIV Status: If Positive, List: CDC AIDS Patient Number (Q23C) can only have a value if HIV Status (Q23A) is equal to 1 (Positive).
-2372	HIV Status: If Positive, List: CDC AIDS Patient Number (Q23C) is not in alphanumeric format.
-2381	HIV Status: If Positive, List: State HIV/AIDS Patient Number (Q23D) can only have a value if HIV Status (Q23A) is equal to 1 (Positive).
-2382	HIV Status: If Positive, List: State HIV/AIDS Patient Number (Q23D) is not in alphanumeric format.
-2391	HIV Status: If Positive, List: City/County HIV/AIDS Patient Number (Q23E) can only have a value if HIV Status (Q23A) is equal to 1 (Positive).
-2392	HIV Status: If Positive, List: City/County HIV/AIDS Patient Number (Q23E) is not in alphanumeric format.
-2401	Homeless Within Past Year (Q24) is not a valid value of 0 (No), 1 (Yes), or 9 (Unknown).
-2501	Resident of Correctional Facility at Time of Diagnosis (Q25A) is not a valid value of 0 (No), 1 (Yes), or 9 (Unknown).

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Number	Message
-2502	Resident of Correctional Facility at Time of Diagnosis (Q25A) can have a value if Resident of Long Term Care Facility at Time of Diagnosis (Q26A) contains (Blank), 0 (No) or 9 (Unknown) and Resident of Long Term Care Facility at Time of Diagnosis: If Yes, (Q26B) is blank.
-2503	Resident of Correctional Facility at Time of Diagnosis: If Yes (Q25B) has a value, Resident of Correctional Facility at Time of Diagnosis Q25A must be equal to 1 (Yes).
-2504	If Resident of Long Term Care Facility at Time of Diagnosis (Q26A) is equal to 1 (Yes) then must be equal to 0 (No).
-2551	Resident of Correctional Facility at Time of Diagnosis (Q25A) is not equal to 1 (Yes), Resident of Correctional Facility at Time of Diagnosis: If Yes (Q25B) must be blank.
-2552	Resident of Long-Term Care Facility at Time of Diagnosis (Q26A) is not equal to Blank, 0 (No), 9 (Unknown), Resident of Correctional Facility at Time of Diagnosis: If Yes (Q25B) must be blank.
-2553	Resident of Long-Term Care Facility at Time of Diagnosis: If Yes (Q26B) is not blank, Resident of Correctional Facility at Time of Diagnosis: If Yes (Q25B) must be blank.
-2554	Resident of Correctional Facility at Time of Diagnosis: If Yes (Q25B) is not a valid value of 1 (Federal Prison), 2 (State Prison), 3 (Local Jail), 4 (Juvenile Correctional Facility), 5 (Other Correctional Facility), or 9 (Unknown).
-2601	Resident of Long-Term Care Facility at Time of Diagnosis (Q26A) can only have a value if Resident of Correctional Facility at Time of Diagnosis (Q25A) is equal to 0 (No), 9 (Unknown) and Resident of Correctional Facility at Time of Diagnosis If Yes (Q25B) is blank.
-2602	Resident of Long-Term Care Facility at Time of Diagnosis: If Yes (Q26B) has a value, Resident of Long-Term Care Facility at Time of Diagnosis (Q26A) must equal 1 (Yes).
-2603	Resident of Long-Term Care Facility at Time of Diagnosis (Q26A) is not a valid value of 0 (No), 1 (Yes) or 9 (Unknown).
-2604	Resident of Long-Term Care Facility at Time of Diagnosis (Q26A) must equal 0 (No) if Resident of Correctional Facility at Time of Diagnosis (Q25A) is equal to 1 (Yes).
-2651	Resident of Correctional Facility at Time of Diagnosis (Q25A) is blank, 0 (No), or 9 (Unknown), Resident of Long-Term Care Facility at Time of Diagnosis: If Yes(Q26B) must be blank.
-2652	Resident of Correctional Facility at Time of Diagnosis: If Yes (Q25B) is not blank, Resident of Long-Term Care Facility at Time of Diagnosis: If Yes (Q26B) must be blank,
-2653	Resident of Long-Term Care Facility at Time of Diagnosis: If Yes (Q26B) is not a valid value of 1 (Nursing Home), 2 (Hospital-Based Facility), 3 (Residential Facility), 4 (Mental Health Residential Facility), 5 (Alcohol or Drug Treatment Facility), 6 (Other Long-Term Care Facility) or 9 (Unknown).
-2654	Resident of Long-Term Care Facility at Time of Diagnosis: If Yes (Q26B) can have a value if Resident of Long Term Care Facility at Time of Diagnosis (Q26A) is equal to 1 (Yes).
-2700	Initial Drug Regimen (Q27) is not a valid value of 0 (No), 1 (Yes), or 9 (Unknown).
-2701	Date Therapy Started (Q28) or Date Therapy Stopped (Q36) are not blank, Initial Drug Regimen must not be blank.

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Number	Message
-2802	Date Therapy Started (Q28) must be equal to or before Date Therapy Stopped (Q36).
-2803	Date Therapy Started (Q28) must be equal to or before the Current Date.
-2804	Date Therapy Started (Q28) must be equal to or after the Date of Birth (Q07)
-2805	Date Therapy Started (Q28) must be equal to or after Month-Year Arrived in U.S. (Q12).
-2806	Number of Weeks between Date Therapy Started Q28 and Date Therapy Stopped (Q36) is less than the Number of Weeks of Directly Observed Therapy (Q39C).
-2808	Date Therapy Started (Q28) must be blank when there is no drug marked as 1 (Yes) in Initial Drug Regimen (Q27).
-2810	There is a value of 1 (Unknown) in Date Therapy Started: Unknown (Q28), Date Therapy Started (Q28) must be blank.
-2811	There is a value of Null (Blank) in Date Therapy Started: Unknown (Q28), Date Therapy Started (Q28) must be blank.
-2812	There is a value of 0 (Known) in Date Therapy Started: Unknown (Q28), Date Therapy Started (Q28) must not be blank.
-2813	There is a value of 2 (Partial) in Date Therapy Started: Unknown (Q28), Date Therapy Started (Q28) must be a partial date.
-2814	Date Therapy Started (Q28) is not in the valid format of YYYY-MM-01, YYYY/MM/01, YYYYMM01 , YYYY-01-01, YYYY/01/01, YYYY0101.
-2851	Date Therapy Started: Unknown (Q28) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).
-2852	Date Therapy Started (Q28) is blank, Date Therapy Started: Unknown (Q28) must equal Null (Blank) or 1 (Unknown).
-2853	Date Therapy Started (Q28) is not blank (Known Date), Date Therapy Started: Unknown (Q28) must equal 0 (Known) or 2 (Partial Date).
-2901	Injecting Drug Use Within Past Year (Q29) is not a valid value of 0 (No), 1 (Yes), or 9 (Unknown).
-3001	Non-Injecting Drug Use Within Past Year (Q30) is not a valid value of 0 (No), 1 (Yes), or 9 (Unknown).
-3101	Excess Alcohol Use Within Past Year? (Q31) is not a valid value of 0 (No), 1 (Yes), or 9 (Unknown.
-3201	Occupation (Check all that apply within the past 24 months): Health Care Worker (Q32A) is not a valid value of 1 (Yes) or Blank (No).
-3202	Occupation (Check all that apply within the past 24 months): Not Employed within Past 24 Months (Q32E) or Occupation (Check all that apply within the past 24 months): Unknown (Q32F) is equal to 1 (Yes), Q32A. Occupation (Check all that apply within the past 24 months): Health Care Worker (Q32A) must not be equal to 1 (Yes).
-3211	Occupation (Check all that apply within the past 24 months):Correctional Employee Q32B is not a valid value of 1 (Yes) or Blank (No).
-3212	Occupation (Check all that apply within the past 24 months): Not Employed within Past 24 Months (Q32E) or Occupation (Check all that apply within the past 24 months): Unknown (Q32F) is equal to 1 (Yes), Occupation (Check all that apply within the past 24 months):Correctional Employee Q32B must not be equal to 1 (Yes).

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Number	Message
-3221	Occupation (Check all that apply within the past 24 months): Migratory Agricultural Worker (Q32C) is not a valid value of 1 (Yes) or Blank (No).
-3222	Occupation (Check all that apply within the past 24 months): Not Employed within Past 24 Months (Q32E) or Occupation (Check all that apply within the past 24 months): Unknown (Q32F) is equal to 1 (Yes), Occupation (Check all that apply within the past 24 months): Migratory Agricultural Worker (Q32C) must not be equal to 1 (Yes).
-3231	Occupation (Check all that apply within the past 24 months): Other Occupation (Q32D) is not a valid value of 1 (Yes) or Blank (No).
-3232	Occupation (Check all that apply within the past 24 months): Not Employed within Past 24 Months (Q32E) or Occupation (Check all that apply within the past 24 months): Unknown (Q32F) is equal to 1 (Yes), Occupation (Check all that apply within the past 24 months): Other Occupation (Q32D) must not be equal to 1 (Yes).
-3251	Q32E. Occupation (Check all that apply within the past 24 months): Not Employed within Past 24 Months is not a valid value of 1 (Yes) or Blank (No).
-3252	Occupation (Check all that apply within the past 24 months): Health care Worker (Q32A) or Occupation (Check all that apply within the past 24 months): Correctional Employee (Q32B) or Occupation (Check all that apply within the past 24 months): Migratory Agricultural Worker (Q32C) or Occupation (Check all that apply within the past 24 months): Other Occupation (Q32D) is equal to 1 (Yes), Occupation (Check all that apply within the past 24 months): Not Employed within Past 24 Months (Q32E) must not be equal to 1 (Yes).
-3261	Occupation (Check all that apply within the past 24 months): Unknown (Q32F) is not a valid value of 1 (Yes) or Blank (No).
-3262	Occupation (Check all that apply within the past 24 months): Health care Worker(Q32A) or Occupation (Check all that apply within the past 24 months):Correctional Employee (Q32B) or Occupation (Check all that apply within the past 24 months): Migratory Agricultural Worker (Q32C) or Occupation (Check all that apply within the past 24 months): Other Occupation (Q32D) is equal to 1 (Yes), Occupation (Check all that apply within the past 24 months):Unknown (Q32F) must not be equal to 1 (Yes).
-3310	Sputum Culture (Q18) is not equal to 1 (Positive) and Culture of Tissue and Other Body Fluids (Q20) is not equal to 1 (Positive), Initial Drug Susceptibility Results (Q33A) must not be equal to 1 (Yes).
-3311	Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? (Q40A) is equal to 1 (Yes), Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done must be equal to 1 (Yes).
-3312	Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? (Q33A) is not a valid value of 0 (No), 1 (Yes), 9 (Unknown).
-3313	There is a value in If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B), Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? (Q33A) must be equal to 1 (Yes).
-3314	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) has a value, Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? (Q33A) must be equal to 1 (Yes).
-3315	Final Susceptibility Results (Q41) are not blank, Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? (Q33A) must be equal to 1 (Yes).

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Number	Message
-3316	Susceptibility Results (Q34) are not blank, Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done? (Q33A) must be equal to 1 (Yes).
-3321	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) must be at least 1 year after If yes, list year of previous diagnosis of TB (Q14B).
-3322	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) must be equal to or after Date of Birth (Q07).
-3323	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) must be equal to or before Month-Year Arrived in US (Q12).
-3324	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) must be greater or equal to 30 days before If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (40B).
-3325	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) must be equal to or before the Current Date.
-3328	Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done (Q33A) is not equal to 1 (Yes), If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility (Q33A) must be blank.
-3329	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) is not in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD.
-3330	Sputum Culture (Q18) and Culture of Tissue and Other Body Fluids (Q20) are equal to No (2), Not Done (3) or Unknown (9), If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) must be blank
-3331	There is a value of 1 (Unknown) in If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B), If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q33B) must be blank.
-3332	There is a value of Null (Blank) in If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q33B), If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) must be blank.
-3332	There is a value of 0 (Known) in If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q33B), If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) must not be blank.
-3351	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q33B) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).
-3352	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) is blank, If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q33B) must equal Null (Blank) or 1 (Unknown).
-3353	If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done (Q33B) is not blank (Known Date), If Yes, Enter Date First Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q33B) must equal 0 (Known).
-3401	Susceptibility Results (Q34) is not a valid value of 1 (Resistant), 2 (Susceptible), 3 (Not Done), 9 (Unknown).
-3402	Initial Drug Susceptibility Results: Was Drug Susceptibility Testing Done:(Q33A) is not equal to 1 (Yes), Susceptibility Results must be blank.
-3403	Sputum Culture (Q18) and Culture of Tissue and Other Body Fluids (Q20) are equal to No (2), Not Done (3) or Unknown (9), Susceptibility Results (Q34) must

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Number	Message
	be blank.
-3510	Sputum Culture (Q18) must be equal to 1 (Positive)
-3511	If Yes, Date Specimen Collected on First Consistently Negative Culture: (Q35C) has a value, Sputum Culture Conversion Documented (Q35A) must be equal to 1 (Yes).
-3512	Sputum Culture Conversion Documented (Q35A) is not a valid value of 0 (No), 1 (Yes), 9 (Unknown).
-3513	If Yes, Date Specimen Collected on Initial Positive sputum Culture: (Q35B) has a value, Sputum Culture Conversion Documented (Q35A) must be equal to 1 (Yes).
-3521	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must be at least 1 year after Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B)
-3522	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must be equal to or after Date of Birth Q07).
-3523	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must be equal to or after Month Year Arrived in US (Q12).
-3524	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must be equal to or before than Current Date.
-3526	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must be equal to or before Date Specimen Collected on First Consistently Negative Culture (Q35C).
-3527	Sputum Culture Conversion Documented (Q35A) is not equal to 1 (Yes), If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must be blank.
-3528	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) is not in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD.
-3529	There is a value in If Yes, Date Specimen Collected on First Consistently Negative Culture (Q35C), there must be a value in If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B).
-3530	There is a value of 1 (Unknown) in If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown (Q35B), If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must be blank.
-3531	There is a value of Null (Blank) in If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown (Q35B), If Yes, Date Specimen Collected on Initial Positive Sputum (Q35B) must be blank.
-3532	There is a value of 0 (Known) in If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown (Q35B), If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must not be blank.
-3551	If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown (Q35B) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).
-3552	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) is blank, If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown (Q35B) must equal Null (Blank) or 1 (Unknown).
-3553	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) is not blank (Known Date), If Yes, Date Specimen Collected on Initial Positive Sputum Culture: Unknown (Q35B) must equal 0 (Known).

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Number	Message
-3554	If Sputum Culture Conversion Documented (34A) is blank, If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) must be blank.
-3571	If Yes, Date Specimen Collected on First Consistently Negative Culture (Q35C) must be at least 1 year after Previous Diagnosis of Tuberculosis: If Yes, list year of Previous Diagnosis (Q14B)
-3572	If Yes, Date Specimen Collected on First Consistently Negative Culture (Q35C) must be equal to or after Date of Birth (Q07).
-3573	If Yes, Date Specimen Collected on First Consistently Negative Culture (Q35C) must be equal to or after Month Year Arrived in US (Q12)
-3574	If Yes, Date Specimen Collected on First Consistently Negative Culture (Q35C) must be earlier than Current Date.
-3575	If Yes, Date Specimen Collected on First Consistently Negative Culture (Q35C) must be after If Yes, Date Specimen Collected on Initial Positive Sputum (Q35B)
-3576	Sputum Culture Conversion Documented (Q35A) is not equal to 1(Yes), If Yes, Date Specimen Collected on First Consistently Negative Culture (Q35C) must be blank.
-3577	If Yes, Date Specimen Collected on Initial Positive Sputum Culture (Q35B) is blank, Date Specimen Collected on First Consistently Negative Culture (Q35C) must be blank.
-3578	Date Specimen Collected on First Consistently Negative Culture (Q35C) is not in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD.
-3579	There is a value of 1 (Unknown) in Date Specimen Collected on First Consistently Negative Culture: Unknown (Q35C), Date Specimen Collected on First Consistently Negative Culture(Q35C) must be blank.
-3580	There is a value of Null (Blank) in Date Specimen Collected on First Consistently Negative Culture: Unknown (Q35C), Date Specimen Collected on First Consistently Negative Culture (Q35C) must be blank.
-3581	There is a value of 0 (Known) in Date Specimen Collected on First Consistently Negative Culture: Unknown (Q35C), Date Specimen Collected on First Consistently Negative Culture (Q35C) must not be blank.
-3591	Date Specimen Collected on First Consistently Negative Culture Unknown (Q35C) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).
-3592	Date Specimen Collected on First Consistently Negative Culture (Q35C) is blank, Date Specimen Collected on First Consistently Negative Culture: Unknown (Q35C) must equal Null (Blank) or 1 (Unknown).
-3593	Date Specimen Collected on First Consistently Negative Culture (Q35C) is not blank (Known Date) Date Specimen Collected on First Consistently Negative Culture: Unknown (Q35C) must equal 0 (Known).
-3594	Sputum Culture Conversion Documented is blank (Q35A), Date Specimen Collected on First Consistently Negative Culture: Unknown (Q35C) must be Blank.
-3602	Date Therapy Stopped (Q36) must be equal to or after Date Therapy Started (Q28).
-3603	The number of weeks between Date Therapy Started (Q28) and Date Therapy Stopped (Q36) is less than the Number of Weeks of Directly Observed Therapy (Q39C).
-3604	Date Therapy Stopped (Q36) must be blank if there is not at least one drug mark 1 (Yes) in Initial Drug Regimen (Q27).

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Number	Message
-3605	Date Therapy Stopped (Q36) must be equal to or before Current Date.
-3606	Date Therapy Stopped (Q36) is not in a valid date format of YYYY-MM-DD, YYYY/MM/DD, YYYYMMDD, YYYY-MM-01, YYYY/MM/01, YYYYMM01.
-3607	There is a value of 1 (Unknown) in Date Therapy Stopped: Unknown (Q36), Date Therapy Stopped (Q36) must be blank.
-3608	There is a value of Null (Blank) in Date Therapy Stopped: Unknown (Q36), Date Therapy Stopped (Q36) must be blank.
-3609	There is a value of 0 (Known) in Date Therapy Stopped: Unknown (Q36), Date Therapy Stopped (Q36) must not be blank.
-3610	There is a value of 2 in Date Therapy Stopped: Unknown (Q36), Date Therapy Stopped (Q36) must be a partial unknown date.
-3651	Date Therapy Stopped: Unknown (Q36) is not a valid value of 0/Null (Not Unknown), 1 (Unknown) or 2 (Partial).
-3652	Date Therapy Stopped (Q36) is blank, Date Therapy Stopped: Unknown (Q36) must equal Null (Blank) or 1 (Unknown).
-3653	Date Therapy Stopped (Q36) is not blank (Known Date), Date Therapy Stopped: Unknown (Q36) must equal 0 (Known) or 2 (Partial)
-3701	Sputum Culture (Q18) is equal to 1 (Positive), Reason Therapy Stopped (Q37) must not be 5 (Not TB).
-3702	Culture of Tissue and Other Body Fluids (Q20) is equal to 1 (Positive), Reason Therapy Stopped (Q37) must not be 5 (Not TB).
-3703	Reason Therapy Stopped must be blank if there are no drugs marked 1 (Yes) in Initial Drug Regimen (Q27).
-3704	Reason Therapy Stopped (Q37) is not a valid value of 1 (Completed Therapy), 2 (Moved), 3 (Lost), 4 (Uncooperative or Refused), 5 (Not TB), 6 (Died), 7 (Other), or 9 (Unknown).
-3801	Type of Health Care Provider (Q38) is not a valid value of 1 (Health Department), 2 (Private/Other), or 3 (Both Health Department and Private/Other)
-3901	There is a value in If Yes, Give Site(s) of Directly Observed Therapy: (Q39B), Directly Observed Therapy (Q39A) must not be equal to Blank ( ), No (0) or Unknown (9).
-3902	Directly observed Therapy (Q39A) is not a valid value of 0 (No, Totally Self-Administered), 1 (Yes, Totally Directly Observed), 2 (Yes, Both Directly Observed and Self-Administered), or 9 (Unknown).
-3903	There is a value in Number of Weeks of Directly Observed Therapy: (Q39C), Directly Observed Therapy (Q39A) must not be equal to Blank ( ), No (0) or Unknown (9).
-3930	Number of Weeks of Directly Observed Therapy (Q39C) is greater than the numbers of weeks between Date Therapy Started (Q28) and Date Therapy Stopped (Q36).
-3951	If Yes, Give Site(s) of Directly Observed Therapy (Q39B) is not a valid value of 1 (In Clinic or Other Facility), 2 (In the Field), 3 (Both in Facility and in the Field), or 9 (Unknown)
-3952	Directly observed Therapy (Q39A) is not equal to 1 (Yes, Totally Directly Observed) or 2 (Yes, Both Directly Observed and Self-Administered), If Yes, Give Site(s) of Directly Observed Therapy (Q39B) must be blank.

TIMS Surveillance Import Utility "How to" Guide

Number	Message
-3971	Directly observed Therapy (Q39A) is not equal to 1 (Yes, Totally Directly Observed) or 2 (Yes, Both Directly Observed and Self-Administered), Number of Weeks of Directly Observed Therapy (Q39C) must be blank.
-3972	Number of Weeks of Directly Observed Therapy (Q39C) is not in a valid numeric format.
-4010	Initial Drug Susceptibility Testing (Q33A) is not equal to Yes (1), Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? (Q40A) must not be equal to 1 (Yes).
-4011	There is a value in If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B), Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? (Q40A) must be equal to 1 (Yes).
-4012	There is a value in Final Susceptibility Results (Q41), Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? (Q40A) must be equal to 1 (Yes).
-4013	Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? (Q40A) is not a valid value of 0 (No), 1 (Yes),or 9 (Unknown)
-4021	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) must be at least 30 days after Date First Isolate Collected for Which Drug Susceptibility Testing was done (Q33B).
-4022	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) must be equal to or after Date of Birth (Q07).
-4023	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) must be equal to or after Month Year arrived in US (Q12)
-4024	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) must be equal to or before the Current Date.
-4025	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) must be blank if Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? (Q40A) is not equal to 1 (Yes).
-4026	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: (Q40B) is not in a valid date format of YYYY-MM-DD, YYYY/MM/DD, or YYYYMMDD.
-4027	There is a value of 1 (Unknown) in If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q40B), If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) must be blank.
-4028	There is a value of Null (Blank) in If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q40B), If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) must be blank.
-4029	There is a value of 0 (Known) in If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q40B), (Q40B) must not be blank.
-4051	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q40B) is not a valid value of 0/Null (Not Unknown) or 1 (Unknown).
-4052	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) is blank, If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q40B) must equal Null (Blank) or 1 (Unknown).

TIMS Surveillance Import Utility "How to" Guide

Number	Message
-4053	If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done (Q40B) is not blank (Known Date), If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q40B) must equal 0 (Known).
-4054	Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? (Q40A) is blank, If Yes, Enter Date Final Isolate Collected for Which Drug Susceptibility was Done: Unknown (Q40B) must be blank
-4101	Final Drug Susceptibility Results: Was Follow-up Drug Susceptibility Testing Done? (Q40A) is not equal to 1 (Yes), Final Susceptibility Results (Q41) must be blank.
-4102	Final Susceptibility Results (Q41) is not a valid value of 1 (Resistant), 2 (Susceptible), 3 (Not Done), or 9 (Unknown).
-4201	Case verification (QCV.2) does not equal 1 (Positive Culture), 2 (Positive Smear/Tissue), 3 (Clinical Case Definition), or 4 (Verified by Provider Diagnosis), Do You want to count this patient at CDC as a verified case of TB? (QCV.1) must be blank.
-4202	Do You want to count this patient at CDC as a verified case of TB? (QCV.1) is not a valid value of 1 (Yes), 2 (No), or blank (Pending or not applicable).
-4203	There is a value in Month-Year Counted, Do you want to count this patient at CDC as a verified case of TB? (QCV.1), must not be blank.
-4301	Case Verification is not a valid value of 0 (Not TB), 1 (Positive Culture), 2 (Positive Smear/Tissue), 3 (Clinical Case Definition), or 4 (Verified by Provider Diagnosis), or 5 (Suspect).
-4302	The Case Verification Value supplied in the import file does not match the Case Verification Value calculated by the import utility.
-4303	The import file cannot contain a blank record RVCT.
-4305	This deleted record does not exist in the TIMS database. Record will not be assimilated.
-4306	This record is not owned by the current site. Record will not be updated.
-4307	This record exists in the TIMS database as a deleted record. This record cannot be updated.
-4308	Race: (select more than one) American Indian or Alaska Native is not a valid value of 1 (Yes) or 0 (No).
-4309	Race: (select more than one) Asian is not a valid value of 1 (Yes) or 0 (No).
-4310	Race: (select more than one) Black or African American is not a valid value of 1 (Yes) or 0 (No).
-4311	Race: (select more than one) Native Hawaiian or Pacific Islander not a valid value of 1 (Yes) or 0 (No).
-4312	Race: (select more than one) White is not a valid value of 1 (Yes) or 0 (No).
-4313	Race: (select more than one) Unknown is not a valid value of 1 (Yes) or 0 (No).
-4314	Race: (Select more than one) Unknown is marked 1 (Yes) , all other races must be equal to 0 (No)
-4315	Race: (select more than one) Asian extended code is not a valid value from the list of HL7 codes for Asian race.
-4316	Race: (select more than one) Native Hawaiian or Pacific Islander extended code is not a valid value from the list of HL7 codes for Asian race.
-4317	Race: (select more than one) has at least one yes value, Unknown must be marked 0 (No).

These error msgs will apply in version 1.2

Appendix D. HL7 Extended Race Codes

The following data describes the HL7 extended codes for the ***Asian*** and ***Native Hawaiian or Pacific Islander*** extended code fields. If the import file does not contain an extended code for the ***Asian*** and ***Native Hawaiian or Pacific Islander choice,*** **TSIU will automatically supply the highest level code.**

ASIAN Extended Codes

HL7 Code	Description
2028-9	Asian
2029-7	Asian Indian
2030-5	Bangladeshi
2031-3	Bhutanese
2032-1	Burmese
2033-9	Cambodian
2034-7	Chinese
2035-4	Taiwanese
2036-2	Filipino
2037-0	Hmong
2038-8	Indonesian
2039-6	Japanese
2040-4	Korean
2041-2	Laotian
2042-0	Malaysian
2043-8	Okinawan
2044-6	Pakistani
2045-3	Sri Lankan
2046-1	Thai
2047-9	Vietnamese
2048-7	Iwo Jiman
2049-5	Maldivian
2050-3	Nepalese
2051-1	Singaporean
2052-9	Madagascar

Native Hawaiian or Pacific Islander Extended Codes

HL7 Code	Description
2076-8	Native Hawaiian other Pacific Islander
2078-4	Polynesian
2079-2	Native Hawaiian
2080-0	Samoan
2081-8	Tahitian
2082-6	Tongan
2083-4	Tokelauan
2085-9	Micronesian
2086-7	Guamanian or Chamorro
2087-5	Guamanian
2083-3	Chamorro
2089-1	Mariana Islander
2090-9	Marshallese
2091-7	Palauan
2092-5	Carolinian
2093-3	Kosraean
2094-1	Pohnpeian
2095-8	Saipanese
2096-6	Kiribati
2097-4	Chuukese
2098-2	Yapese
2100-6	Melanesian
2101-4	Fijian
2102-2	Papua New Guinean
2103-0	Solomon Islander
2104-8	New Hebrides
2500-7	Other Pacific Islander

TB AUTOMATED "CANNED" REPORTS

1. **Transactional reports**: Real-time reports run against the transactional database
2. **Analytic reports**: reports run against the warehouse database (not real-time)
3. **Summary/ Line list:** Summary reports present aggregated data, line lists display selected characteristics of individual cases.
4. **Priority**: Indicate priority of report (1+, 1, 2, 3 similar to requirements priorities)
5. **Confidentiality level**: Indicates "confidential" information that would only be viewable/printable based on roles (see note at the end of this section[†]).

TB Reports

	Report Type			Priority	Report Title	Description
	Transactional	**Analytic**	**Summary/ Line list**			
1			Line list	1	**Confirmed TB Cases Report Confidential**	This report displays confirmed active TB cases by: 1) time frame (report or count date) 2) jurisdiction list variables: 1) state case number 2) name 3) date of birth 4) count date 5) verification criteria 6) count status
2			Summary	1	**Confirmed Cases Frequency Report**	This report displays the number of confirmed cases by: 1) LHD 2) time frame (month/year) 3) verification criteria 4) count status
3			Summary	2	**TB Case Rates**	This report displays the number and percent of cases per 100,000 by: 1) time frame (report or count date) 2) jurisdiction 3) age, sex, race/race ethnicity 4) count status

	Report Type			Priority	Report Title	Description
	Transactional	**Analytic**	**Summary/ Line list**			
4			Summary	1	**Demographics Summary**	This report displays number and percent of cases by: 1) time frame (report date or count date) 2) jurisdiction 3) count status summary variables: 1) Sex 2) Race/ethnicity 3) Age category 4) U.S.-born vs Foreign-born
5			Line List	1	**Pulmonary/laryngeal Cases Smear and Culture Report (ARPE Required Cases Report) Confidential**	This report displays cases with positive sputum smears and/or cultures and other verified pulmonary/laryngeal TB cases (algorithm to be provided) by: 1) time frame (based on Jan-June and July-Dec cohort) 2) jurisdiction 3) count status list variables: 1) state case number 2) name 3) report and count dates 4) TB site 5) Results for sputum smear and culture, and micro exam and culture of other tissues and body fluids
6			Line List	1	**Suspect Cases Report Confidential**	This report displays cases that have a verification criteria of '0' (Suspect Case) by: 1) report date 2) jurisdiction list variables: 1) state case number 2) name 3) date of birth 4) verification and count status

	Report Type			Priority	Report Title	Description
	Transactional	**Analytic**	**Summary/ Line list**			
7			Line list	1	**Deleted Cases Report Confidential**	This report displays cases that have been marked for deletion from the system in a predetermined time frame and will list: 1) state case number 2) name 3) date of birth 4) delete date 5) report date
8			Line list	1	**Missing Data Report**	This report displays a line listing of missing data on the RVCT by: 1) time frame (report date or count date) 2) jurisdiction 3) count status and will list: 1) state case number 2) RVCT question number for missing data 3) error message *NOTE: this requires multi-file processing (RVCT, FU-1, FU-2)*
9			Line list	1	**Possible Logic Errors Report**	This report displays a line listing of possible errors data on the RVCT by: 1) time frame (report date or count date) 2) jurisdiction 3) count status and will list: 1) state case number 2) RVCT question number for error 3) logic error message *NOTE: this requires multi-file processing (RVCT, FU-1, FU-2)*

	Report Type			Priority	Report Title	Description
	Transactional	**Analytic**	**Summary/ Line list**			
10			Line list	1	**FU-1 and FU-1 Tickler Report**	This report displays cases that are: 1) culture positive, do not have a FU-1 reported and have 4 months elapsed since the report date 2) resistant to INH and RIF and have not reported 'susceptible' or 'resistant' to any second line drugs 3) alive at diagnosis, do not have a FU-2 reported and more than 9 months have elapsed since the therapy start date 4) resistant to INH and RIF OR sputum culture positive and time to convert is greater than 90 days and no FU-2 susceptibility results are reported by: 1) time frame (report date or count date) 2) jurisdiction and will list: 1) state case number 2) count date 3) missing report/ missing data error message *NOTE: this requires multi-file processing (RVCT, FU-1, FU-2)*
11			Line list	2	**Cases Transferred Out Report Confidential**	This report displays cases that have transferred out of the user's jurisdiction by: 1) time frame (report date or count date) 2) destination jurisdiction list variables: 1) state case number 2) name 3) birth date 4) count date 5) move date(s) 6) destination jurisdiction(s) *NOTE: this requires multi-file processing (RVCT, FU-1, FU-2)*

	Report Type			Priority	Report Title	Description
	Transactional	**Analytic**	**Summary/ Line list**			
12			Line list	1	**Cases Transferred In Report Confidential**	This report displays cases that have transferred into the user's jurisdiction by: 1) time frame (report date or count date) 2) originating jurisdiction list variables: 1) state case number 2) name 3) birth date 4) count date 5) move date(s) 6) originating jurisdiction and most recent jurisdiction(s) *NOTE: this requires multi-file processing (RVCT, FU-1, FU-2)*
13			Line list	1	**Admin QC Log Report**	This report displays a log of dates and times that quality control reports (see reports numbered 6 through 12) were generated/viewed and by whom by: 1) time frame (report date or count date) 2) jurisdiction

	Report Type			Priority	Report Title	Description
	Transactional	**Analytic**	**Summary/ Line list**			
14			Line list	2	**Drug Resistance Report Confidential**	This report displays cases that are resistant to at least one first line drug (INH, RIF, PZA, EMB, SM) drug by: 1. time frame (report date or count date) 2. jurisdiction 3. count status list variables: 1) state case number 2) name 3) birth date 4) count date/ isolate collection dates 5) resistance pattern 6) smear status 7) culture conversion 8) genotype 9) MDL (starLims) susceptibility results *NOTE: this requires multi-file processing (RVCT, FU-1, FU-2)*
15			Summary	3	**TB Drug Resistance Summary**	This report displays the number and percentage of TB cases with drug susceptibility testing done with mono (resistant to at least one first line drug)- and multidrug (resistant to at least INH and RIF)-resistance, and number/percent resistance to individual anti-TB drugs by: 1) time frame (report date or count date) 2) jurisdiction 3) count status summary variables: INH, RIF, PZA, EMB, SM, INH+RIF(MDR)

	Report Type			Priority	Report Title	Description
	Transactional	**Analytic**	**Summary/ Line list**			
16			Line list	1	**Completion of Therapy and Treatment Outcomes Confidential**	This report displays cases that were alive at diagnosis and started therapy: 1) time frame (report date or count date) 2) jurisdiction 3) count status list variables: 1) state case number 2) name 3) birth date 4) count date 5) therapy stop reason 6) culture conversion dates 7) therapy start date 8) therapy stop date 9) susceptibility result (if performed) to INH 10) susceptibility result (if performed) to RIF *NOTE: this requires multi-file processing (RVCT, FU-1, FU-2)*
17			Summary	2	**Treatment Outcomes Summary**	For cases that have started therapy and were alive at diagnosis, this report displays numbers and percents for treatment outcomes.
18			Summary	2	**TB Risk Factors Summary**	This report displays the number and percent of risk factors reported for TB cases by: 1) time frame (report date or count date) 2) jurisdiction 3) count status summary variables: 1) AIDS diagnosis 2) IV drug use 3) non-IV drug use 4) alcohol use 5) residence in a correctional facility at diagnosis 6) residence in a long term care facility at diagnosis 7) occupation

	Report Type			Priority	Report Title	Description
	Transactional	**Analytic**	**Summary/ Line list**			
19			Summary	2	**Clinical Presentation Report**	This report displays the number and percent of clinical variables reported for TB cases by: 1) time frame (report date or count date) 2) jurisdiction 3) count status summary variables: 1) X-ray status 2) TST results 3) drug regimen 4) sputum smear results 5) sputum culture results 6) micro exam results 7) other culture results
20			Summary	2	**Programmatic Variables Report**	This report displays the number and percent of programmatic variables reported for TB cases by: 1) time frame (report date or count date) 2) jurisdiction 3) count status summary variables: 1) DOT/SAT/Both 2) Provider Type 3) DOT Site

AD HOC REPORTING:

Provide a list of the basic data criteria that you would like to use to generate ad hoc reports (for example, “Jurisdiction” “age” “race” etc.).

1. Create Data Subset with Filters

Jurisdiction: see list of CA local health departments

Time Frame: Choose**:** Report Date, Count Date, Submit Date then select month/year beginning and end dates

Age group* 1 = 0 to 4 years 10 = 45 to 49 years
2 = 5 to 9 years 11 = 50 to 54 years

3 = 10 to 14 years	12 = 55 to 59 years
4 = 15 to 19 years	13 = 60 to 64 years
5 = 20 to 24 years	14 = 65 to 69 years
6 = 25 to 29 years	15 = 70 to 74 years
7 = 30 to 34 years	16 = 75 to 79 years
8 = 35 to 39 years	17 = 80 to 84 years
9 = 40 to 44 years	18 = 85+ years

OR Age Category*
0-4
5-14
15-24
25-44
45-64
64+

Race/Ethnicity: Black (not Hispanic), White (not Hispanic), Hispanic, Asian, American Indian or Alaskan Native, Native Hawaiian or Pacific Islander, Multiple Races, Unknown
Smear Status: Positive, Negative, Unknown, Not Done
TB Site: Pulmonary only, Extra-pulmonary only, Both pulmonary and extra-pulmonary (clarify that this is different then ALL cases)
Citizenship: U.S-born, Foreign-born

Should have the ability to select multiple choices for each.

2. Ad Hoc Query
To use with entire data set or a subset of data generated by the filter function.
Ability to select any RVCT variable and use with operators, values and connectors to create a query (see TIMS ad hoc).
Ability to sort data.
Files must be merged (RVCT, FU1, FU2, Client (depending on roles)) or be able to link tables.

*Age Group is a TIMS created variable, Age Category is a TBCB created variable.

†Privacy Notice:

Information contained on this form [RVCT, Follow-Up 1, Follow-Up 2] which would permit identification of any individual has been collected with a guarantee that it will be held in strict confidence, will be used only for surveillance purposes, and will not be disclosed or released without the consent of the individual in accordance with Section 308(d) of the Public Health Service Act (42 U.S.C. 242m).

The information included in this report is restricted to the use of the intended recipient. Unauthorized or improper use of this information may result in administrative disciplinary action and/or civil and criminal penalties. By receipt of this information you indicate your awareness of and consent to these terms and conditions of use.

**** CONFIDENTIAL PATIENT INFORMATION ****

CONFIRMED CASES FREQUENCY REPORT

For the Month -Year Reported:
Beginning **01/2005** and Ending **12/2005**

For Reporting Jurisdiction(s): **Contra Costa County**

Month-Year Counted	Number of Confirmed Cases	Number of Counted Cases
01/2005	5	5
02/2005	4	4
03/2005	6	6
04/2005	0	0
05/2005	13	11
06/2005	5	5
07/2005	4	4
08/2005	4	4
09/2005	4	4
10/2005	4	4
11/2005	1	0
12/2005	6	6

Number of Confirmed Cases: **56**
Number of Counted Cases: **53**

**** CONFIDENTIAL PATIENT INFORMATION ****

DEMOGRAPHICS SUMMARY

For the Month -Year Reported:

Beginning **01/2005** and Ending **12/2005**

For Reporting Jurisdiction(s): **Contra Costa County**

For **COUNTED** cases

Race/Ethnicity (calculated)	Number of Records	Percent
White (not Hispanic)	15	34.09%
Black (not Hispanic)	4	9.09%
Asian	14	31.82%
Hispanic	10	22.72%
American Indian or Alaskan Native	1	2.27
Native Hawaiian or Other Pacific Islander	0	0%
Multiple Races	0	0%
Unknown	0	0%
Missing	0	0%
Total	44	100%

Sex	Number of Records	Percent
Male	27	61.36%
Female	17	38.64%
Unknown	0	0%
Missing	0	0%
Total	44	100%

Country of Origin	Number of Records	Percent
U.S.-born	20	45.45%
Foreign-born	24	54.55%
Unknown	0	0
Missing	0	0
Total	44	100%

**** CONFIDENTIAL PATIENT INFORMATION ****

Confirmed TB Cases Frequency Report

For the Month -Year Reported:

Beginning **01/2005** and Ending **12/2005**

For Reporting Jurisdiction(s): **Contra Costa County**

Jurisdiction	Month-Year Counted	State Case Number	Patient Name	Date of Birth	Verification Status	Count Status
Contra Costa	01/2005	507000001	Doe, John J.	01/01/1950	Culture (1)	Counted
Contra Costa	01/2005	507000002	Doe, Bob J.	01/01/1950	Clinical (3)	Counted
		1/2005 Total Records: 2				
		1/2005 Total Counted Cases: 2				
Alameda		560000007	Smith, Jane J.	01/01/1950	Clinical (3)	Not Counted
Contra Costa	06/2005	607000003	Smith, Jack J.	01/01/1950	Provider Dx (4)	Counted
		1/2005 Total Records: 2				
		1/2005 Total Counted Cases: 1				

Total Number of Records: 4

Total Counted Cases: 3

CONFIDENTIALITY NOTICE

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**** CONFIDENTIAL PATIENT INFORMATION ****

SUSPECT CASES REPORT

For the Month -Year Reported:

Beginning **01/2005** and Ending **12/2005**

For Reporting Jurisdiction(s): **Contra Costa County**

Jurisdiction	Month-Year Reported	State Case Number	Patient Name	Date of Birth	Verification Status	Count Status
Contra Costa	01/2005	507000001	Doe, John J.	01/01/1950	SUSPECT (0)	Not Counted
Contra Costa	05/2005	507000007	Smith, Jane J.	01/01/1950	SUSPECT (0)	Not Counted

Total Number of Records: 2

Quality Control Report 26JAN07

14:57 Friday, January 26, 2007 1

State of California Department of Health Services
Tuberculosis Control Branch
A,B,C Type Errors -- Please check your TIMS for each error listed
A errors = very likely errors --- B and C errors = possible inconsistency, please check for accuracy

jurisdic=CaCounty ABtype=A

State Case Number	Local Case Number	Question Number	Error
615000024	000293456	27	Initial Streptomycin is blank or invalid when patient is alive
615000024	000293456	27	Initial Ethionamide is blank or invalid when patient is alive
615000024	000293456	27	Initial Kanamycin is blank or invalid when patient is alive
615000024	000293456	27	Initial Cycloserine is blank or invalid when patient is alive
615000024	000293456	27	Initial Capreomycin is blank or invalid when patient is alive
615000024	000293456	27	Initial PAS Acid is blank or invalid when patient is alive
615000024	000293456	27	Initial Amikacin is blank or invalid when patient is alive
615000024	000293456	27	Initial Rifabutine is blank or invalid when patient is alive
615000024	000293456	27A	Initial Ofloxacin is blank or invalid when patient is alive
615000024	000293456	27A	Initial Other Drug is blank or invalid when patient is alive
615000034	000298027	38	Type of provider is not 1, 2, 3
615000034	000298027	39	Case on therapy and (39) Directly observed therapy is blank
615000038	000299792	18	Sputum culture is blank or not valid

jurisdic=CaCount ABtype=B

State Case Number	Local Case Number	Question Number	Error
615000006	000188946	36	Case completed less than 180 days of therapy
615000034	000298027	36	Case on therapy and (36) Date therapy stopped is blank

Line listing Reports:

Counted cases report: vars: Name StateCaseNumber DOB Countdate Vercrit
by LHJ
by date ranges

suspect cases report: vars: Name StateCaseNumber DOB Reportdate
by LHJ

Deleted cases report: vars: Name stateCaseNumber DOB Countdate Vercrit
by LHJ

Missing data report: vars: Name StateCaseNumber DOB <missing var list>
by LHJ
by date ranges

Possible logic errors report: vars: Name StateCaseNumber <specify logic error>
by LHJ
by date ranges

F/U1 and F/U2 tickler report: vars: Name StateCaseNumber <list cases that need F/U1 or F/U2 report>
by LHJ
by date ranges

CA Cases moved-in report: vars: Name StateCaseNumber DOB Countdate Moveddate OrigLHJ
by LHJ

Frequency Reports:

Counted cases report: vars: By count month - Number of Counted Cases
by LHJ
by date ranges

Basic Demographic report: vars: By count year - Sex, Raceeth, Agecat, US/F born, Prev Diagnosis
by LHJ
by date ranges

Basic Case Summary report: vars: By count year - Drug Regimen, Time on Tx, MDR/XDR, Outcome, Provtype, DOT/SAT
by LHJ
by date ranges